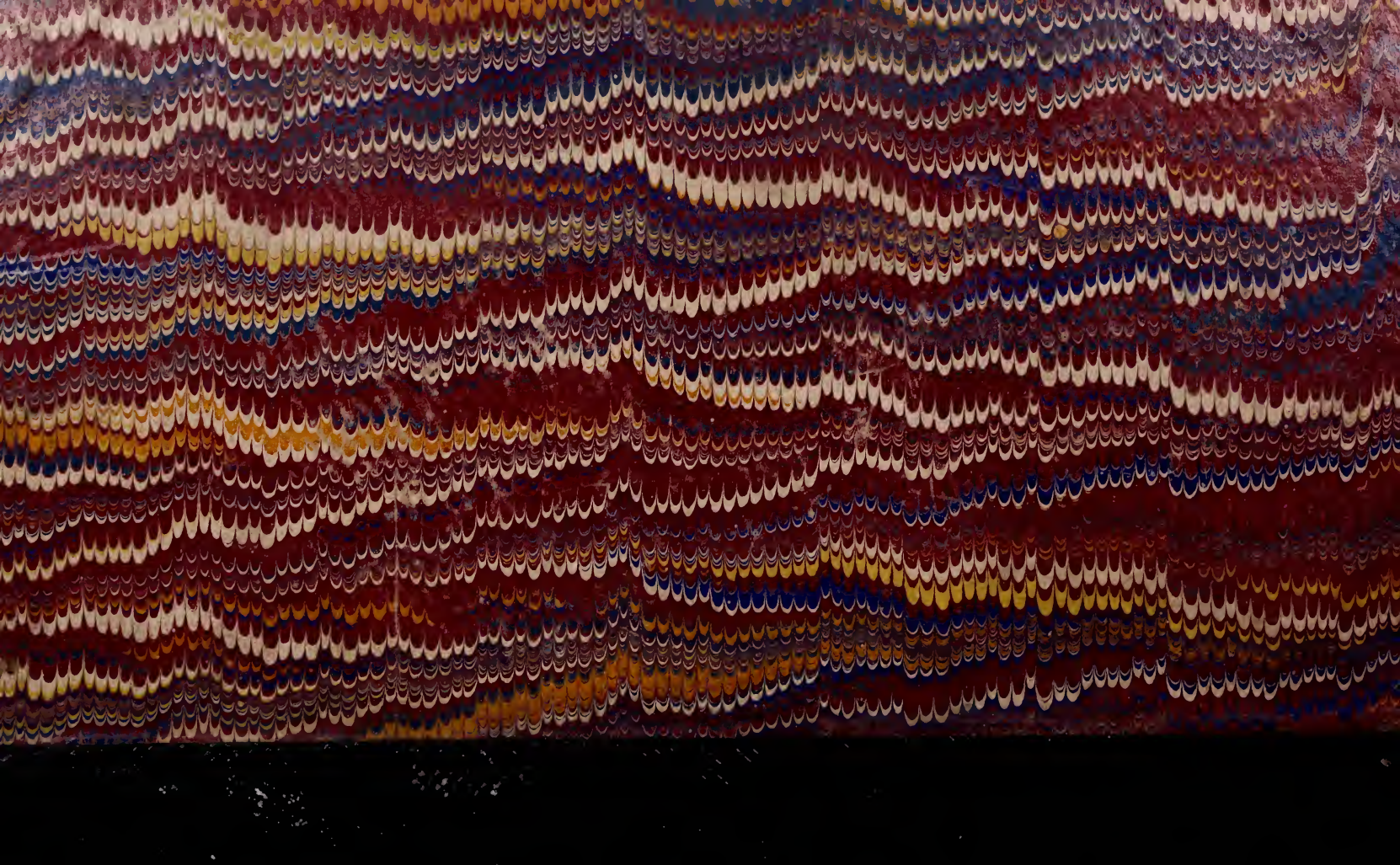

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LANDON B. EDWARDS, M. D.,

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Original Communications.

ART. I.—The Formation of Epicystic Surgical Fistula for the Relief of Vesical Catarrh, in Two Cases.*

By JOHN D. S. DAVIS, of Birmingham, Ala.

CASE I—Prostatico-Vesical Calculus—Hypertrophy of Prostate—Chronic Vesical Catarrh—Supra-Pubic Lithotomy and Formation of Permanent Epicystic Surgical Fistula—Recovery.

Mr. H. Houpt was a very large man, American, merchant jeweler, had been a sufferer from enlarged prostate gland and cystitis for seven years. For five years he was troubled with intense pain in the rectum, difficult micturition, and frequent priapism.

The patient presented himself for treatment December 25th, 1888. There was constant fever and great emaciation. The prostate gland was very much enlarged, distending the perineum and pressing upon the rectum. Urine had to be drawn every fifteen or twenty minutes with a soft catheter. Chemical and microscopical examination of urine revealed evidences of chronic catarrh of the bladder. The urethra was found competent to admit readily and without difficulty a No. 32 (F.) sound to the prostate. The prostatic urethra admitted a No. 13 (F.) sound. Frequent and repeated ex-

*Reported before Jefferson County Medical Society. March, 1889. Patients exhibited.

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aminations for stone gave negative results. I tried in vain to find a stone, Dec. 25th and 30th, 1888, and Jan. 15th, 1889. Cystoscopic exploration was impossible, owing to the incompetency of the prostatic urethra.

Electrolysis was used on the prostate December 27, 1888, January 2d, 9th and 20th, 1889, with good results, so far as reducing the size of the gland was concerned.

On Jan. 20th, while using the electricity, I felt the electrode touch, what I thought to be, a small prostatic stone. With my finger in the rectum and a searcher in the urethra, I could feel a hard resisting body between the instrument and my finger, which I had on previous examinations failed to detect. I failed to get the stone click until I withdrew my finger from the rectum, and allowed the end of the searcher to rest in the prostatic urethra, in the same position in which the electrode had been used, when I again felt the stone. I concluded the stone was prostatic, and its detection was due to the absorption of the prostate gland by electrolysis, revealing the stone—so long and securely hid in its nest.

Epicystotomy was advised, with the intention of establishing a permanent fistula for the complete and constant drainage of the bladder.

Supra-pubic lithotomy was performed February 8th, 1889, in the presence of Drs. W. E. B. Davis, W. W. Ransom, R. D. Webb, G. S. Brown, T. D. Parke and W. L. Chew, removing a soft phosphate of lime prostatic vesical calculus, weighing 520 grains. The stone occupied the median space between the prostatic urethra and rectum, slightly protruding into the viscus, as in Poland's case,* except that the stone was oblong and had no constricted neck. The intra-vesical portion protruded slightly into the bladder, and was covered by a protruding pedunculated apron-like layer of the third lobe, which acted as a shield, and prevented the searcher from touching the intra-vesical portion of the stone.

The operation was done in the following manner: The bowel was thoroughly cleansed by means of a saline cathartic administered the night previous; the pubes and abdomen were shaved and well scrubbed; the rectum was distended by the introduction of a rectal colpeurynter, which was afterwards filled with water. After complete anæsthesia from chloroform, the bladder was thoroughly cleansed by repeated washing out with warm, sterilized water through

*Guy's Hospital Reports, 1857. *International Encyclopædia of Surgery*, Vol. VI, p. 393.

a soft rubber catheter, and then distended by injecting three ounces of warm, sterilized water through the urethra, which was secured by a rubber tube around the penis at the base. A clean cut median incision was now made down to the transversalis fascia, three inches in length. The transversalis fascia was divided on a grooved director from the symphysis pubis to a point within one-half inch of the upper part of the superficial incision; the pre-vesical fat and bladder were incised a little lower than the top of the pubis, and the opening enlarged downwards sufficiently to accommodate the stone, which was extracted from its nest and removed; the water was let out of the rectal colpeurynter and bag removed. The bladder was allowed to drop down into the cavity of the pelvis, and the wound so closed (after the method of Dr. Hunter McGuire)* as to leave a fistulous track from the bladder to the junction of the middle and upper thirds of the superficial incision.

This fistulous track has been kept open by the repeated use of a soft catheter and the constant outflow of urine. The bladder has been washed out with sterilized water, by means of a fountain-syringe, with the nozzle in the urethra, twice daily since the operation. Urine has been kept acid, and no dressing used except a pad of absorbent cotton—removed as often as soiled by the outflowing urine.

Analysis of urine, secreted thirty days after the operation, shows but little mucus. Patient can lay on his back and throw a stream of urine fourteen inches above the abdomen. He can retain his urine from four to five and a half hours. The capacity of the bladder is now fourteen and one-half ounces. He is no longer troubled with painful priapism, but is rapidly regaining a normal sexual feeling. He is now able to be at his store and attend to his various duties.

The patient before you is the best proof of the merits of the fistula as an after-treatment in all intra-vesical operations. The fistula serves him admirably—much better than his slightly-obstructed urethra can ever do—and is, I think, in some measure at least, proof of the success contemplated for the operation.

Case II.—Chronic Vesical Catarrh—Abscess in Trigonum Lieutaudi—Epicystotomy and Formation of Permanent Epicystic Fistula—Recovery.

Mr. T. A. Nixon, aged forty-four years, American, travel-

* *Virginia Medical Monthly*, October and November, 1888.

ing salesman, gave a history of cystitis of twenty-two years standing. He had gonorrhœa in 1867; difficulty in passing urine began in 1869; he has been treated by many Southern surgeons. Dr. C. H. Mastin, of Mobile, operated on a stricture in 1885; Dr. Hunter McGuire treated him for cystitis in 1886. He continued to go from bad to worse, year after year and day after day, until he had no rest from urinating, and no relief from pain. He used eight to ten grains of morphine daily hypodermically, and urinated every ten to thirty minutes.

When I first saw him his temperature was 104° F., pulse 140 per minute, respiration hurried, and his general aspect was that of a man rapidly sinking. He told me that such attacks were of frequent occurrence, but were growing more and more severe.

I examined his bladder and found nothing that I could recognize to convince me that he had anything but a simple case of cystitis of long standing. His urethra admitted No. 24 (F.) sound, and seemingly it appeared competent, but no urine passed except when drawn by the catheter, which he kept introduced nearly all the time. The sediment consisted of 60 per cent. mucus—no pus. I advised the formation of a permanent epicystic fistula. The patient agreed to take my advice and submit to the operation.

Epicystotomy was performed February 13, 1889, in the presence of Drs. W. E. B. Davis, W. W. Ransom, G. S. Brown, B. G. Abernathy, A. G. Douglass, and —— Pouncy.

The bladder was opened through a perpendicular incision and thoroughly explored. Capacity of bladder two and a half ounces; walls thickened; abscess in trigonum. I ruptured the abscess wall and washed out the bladder with a solution of boric acid, and closed the wound by two superficial sutures in the lower part of the wound and one in the upper part, leaving a fistulous track three inches long from the viscus to the upper third of the superficial wound. Patient experienced almost immediate relief from pain, and now takes only one grain and one-half of morphine per day. A No. 30 (F.) rubber catheter was left in the fistulous track for three days when it was removed. The hot-water douche, by means of a fountain-syringe, has been kept up twice daily since. The capacity of the bladder now, twenty days since operation, is ten ounces; no pain, no fever, no difficulty in passing urine during the fistulous opening. Urine slightly acid; specific gravity 1020, and contains but little mucus and no pus. Recovery is as rapid as could possibly be ex-

pected—in fact, he is doing much better than I even hoped to see in so short a time.

The operation was performed with the intention of creating a permanent fistula. It is now indispensable to his comfort and well being, and from my experience with this class of persistent vesical troubles, I am sure he will never consent to its permanent closure.

Remarks.—I have introduced these cases to conclusively illustrate the positive results attained by the establishing of a permanent surgical fistula for thorough and complete drainage in all bladder and many prostatic troubles.

In no way can the operation damage the general health of the patient or inconvenience him in coition. It serves the best purpose possible for cystoscopic explorations when the cystoscope cannot be introduced *per urethram*, when it becomes necessary to examine the viscus for subsequent troubles. With the patient in Trendelenberg's posture, a more complete and satisfactory cystoscopic exploration of the trigonum Lieutaudi can be had through the epicystic fistula than in any other way. Even with the patient on his back, the bladder may be better illuminated with an electric surgical light through the epicystic fistula than through the urethra. While the operator is making his examination, in future after troubles, a constant current of clear fluid may more easily be kept up within the viscus, the cystoscope being introduced through the epicystic surgical fistula, and a better view had of the intra-vesical wall by the maintenance of a clear medium so essential to accurate observation.

The dangers of the operation, with ordinary care, are *nil*. It secures permanent drainage, desirable in prostatic hypertrophy, in serious vesical catarrh, malignant growths, and vesical resection. I consider it the best method of draining the bladder for any cause. Though I have made frequent incisions into the bladder for drainage, I in no instance was rewarded with such positive results as I have attained by the epicystic fistula.

There is no doubt, in my opinion, that *epicystic surgical fistula* has a great future for cystoscopic explorations, intra-vesical and prostatic treatment and for drainage of the bladder whenever that is deemed desirable.

Art. II.—Plaster-of-Paris Bandage Treatment of Fractures of Long Bones—Double as Well as Single Bones. Its Application to Colles' Fracture.

By JOHN A. COMINGOR, M. D., of Indianapolis, Ind.

Professor of the Principles and Practice of Surgery, and of Clinical Surgery in the Medical College of Indiana, etc.

In the January number, 1889, of the *Virginia Medical Monthly*, is a paper by Dr. John Brownrigg, of Columbus, Miss., on the "Treatment of Fractures of the Forearm." Now, I want it distinctly understood that I do not enter the field as a critic; on the contrary, I commend his article and his method of treatment to all who desire to study this subject. The question that presents itself to my mind is, do we know now or can we find a plan of treatment simpler and easier of execution, that will furnish as good results as is claimed for his. This question I will try to answer.

For nearly twenty consecutive years, I have been an earnest advocate of the plaster bandage in the treatment of all fractures suited to the use of this material; and I am sure my readers will pardon me for making a personal allusion, when I state that, during these years, I have had many opportunities of testing the merits of this bandage. In point of fact, allow me to say, that during this time, I have confined myself almost entirely to this dressing. My long-continued and uninterrupted use of the bandage is pretty good evidence that my work has been satisfactory. Had I met with frequent disappointments, I am confident I would have abandoned it before this.

I believe no valid objection can now be raised against this dressing in fractures of long single bones. This is generally admitted to be good practice. But there seems to be still some objections to its use in fractures of double bones, such as constitute the forearm. This objection deserves consideration, and it is not my intention to ignore it. If it can be shown that it can be safely and successfully used in fractures of the forearm, then further opposition will be unreasonable. This, in my opinion, can be demonstrated—has already been demonstrated.

The objections urged against the bandage are two—perhaps three:—The danger of obliterating the interoseous space, the fear that the bandage will become too tight from swelling, and the lack of extension. Now, if it can be shown that these objections have no foundation, then the plaster-of-Paris dressing should become more popular and come into general use.

It is a realistic fact that, in order to maintain the natural motions of the forearm, the interoseous space must be preserved; that a tight bandage must be avoided, and extension, if found necessary, practiced. In my opinion, these indications can be met as faithfully and as effectually with the plaster dressing as it is possible to meet them with any form of dressing. Its durability, ease of application, and comfort to the wearer commend it.

There are still other points in its favor. The opinion is prevalent, and past experience records the fact, that fractures in close proximity to joints are liable to be followed by stiff joints and adherent tendons. My experience with the splints is in accord with this view; but since adopting the plaster bandage, I have rarely met with this undesirable complication. So rarely does it occur, that, when it does, I am inclined to charge it to faulty application. Therefore, I ask, is it not probable that impaired joints and tendonous adhesions are usually due to the dressing rather than to the injury? When one contemplates the careless manner in which the application of the ordinary splints is made, he is almost forced to give an affirmative answer. The pressure is too great and irregularly made, whereas very little pressure is needed, and that little should by all means be regularly applied. The plaster furnishes all the pressure needed, and it can be so equally distributed that no point gets more than its share.

Now, let us see if we can describe the method of application in *fractures of the shafts of double bones*, such as those of the forearm, so as to meet the purposes indicated. Either before or after complete adjustment of the fractures, a knit undersleeve* or webbing should be slipped over the arm,

*Messrs. A. M. & F. D. Lawson, Holland Building, Broadway and 40th

extending from the fingers to some distance above the elbow. Through this covering it will be an easy matter to ascertain if the bones are in place, and the arm in line. If satisfied on these points, an assistant steadies the arm supinely, and at a right angle to the forearm, while the surgeon encases it in the plaster. This is done by unrolling a two-and-one-half-inch bandage, having been well saturated in warm salt or alum water, round the hand several thicknesses; then passing it around the wrist and up the forearm in like manner, several inches above the elbow. Then shape the bandage in the form of a splint, by making pressure along the front and back of the forearm, either with the hands or by binding on strips of boards and maintaining them in place until the plaster becomes hard and inflexible. It is evident this process, if properly carried out, will relieve the arm of all lateral pressure, by simply transferring it to the centre, forcing the muscles between the bones, and thus preserve the integrity of the space. This completes our primary work, and we have only to keep our patient under close observation for a few days, to see if the plaster dressing fulfils the designs intended. If comfortable, and no swelling of consequence ensues, it should not be meddled with for ten days, or perhaps a fortnight, when it should be divided, and the arm inspected. If there be no displacement, the same splint, if not impaired, may be replaced and secured with ordinary roller bandage, or by adhesive strips. If at any time the dressing should become uncomfortably tight, it should be divided without delay, and secured as heretofore advised; or, if swelling continues, leave it open. If it is desirable to preserve the splint for future use, carefully divide it along the line of the radius to the root of the thumb, and then draw it off as you would remove a glove.

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street, New York, N. Y., prepare all such sleeves, shirts, etc., at shortest notice, if they do not happen to have on hand exactly what is wanted at the moment of the order. They do all such work for Dr. Lewis A. Sayre, and other eminent surgeons all over the country. It is well for all surgeons especially to keep on hand an assortment of sizes of their seamless knit, skin-fitting, woollen shirts, leggings, sleeves. etc., so as to be ready for any of the operations requiring the use of plaster-of-Paris or other like material.

It is said, and even written, that the plaster-of-Paris dressing is objectionable at any time, from danger of forcing the bones together, because of the swelling of the limb, after its application, and because it shuts out all inspection. I have not found any of these objections true in any particular. On the contrary, I know of no dressing so free from such complications. After its division along the radial line as indicated, the bandage can be sprung apart, when inspection can be made to the satisfaction of any one, and that, too, without risk of displacement or interference with union.

Again, the parts do not tire and chafe under this splint. If it were possible to get the testimony of those who have worn this dressing, no other argument would be necessary to convince the unprejudiced mind of its utility.

Further back I wrote that extension should be resorted to, provided it becomes necessary; but I wish now to state that forcible extension is seldom required as pre-requisite to the application of this dressing, as the plaster splint itself furnishes all the traction needed. When the muscles are put to rest and immobility secured, all is accomplished in this direction that is practicable.

Before closing, I desire to write a word on the *management of Colles' fracture.* This is a typical example of injury in close proximity to joints, and is well calculated to test the merits of the different methods of treatment. With the plaster dressing, I am willing to enter the contest, and abide by the results that are worked out. There are but few simple injuries which confront the surgeon with so many difficulties, and leave his patients with as great a disability. Stiff joints and inactive tendons seem to be the common result. In years gone by, I confess to have had my share of this experience.

About ten years ago I abandoned the standard position and splint treatment, and adopted in their stead the plaster dressing, and any position best suited to the case. Since that time I have encountered less trouble, and obtained much better results. It is not necessary to speak of proper adjustment of the fracture; this is understood to have been properly attended to. The preparation for the application

of the plaster splint, after reduction of the fracture, etc., is similar to the one already recorded—the only difference being in the position of the hand. It is usually best to put the hand in a state of partial flexion on the forearm. The bandage need not be so substantial nor be so high, as in fractures higher up the limb. Half the length of forearm is ample distance to run the plaster bandage, and it need not remain on more than a fortnight. The bandage may be cut at any time, and, if deemed best, left partly open. This will give ample opportunity for inspection, and at the same time furnish the necessary support. It may be removed any day from the first day of the injury to the last day of treatment, with impunity, and replaced at pleasure. It will thus be seen that bathing, massaging, and movement can be practiced at will. This will insure freedom from joint and tendonous complications to a degree that I have never been able to obtain from any other dressings.

As opinions are at variance with regard to the time *when the plaster bandage should be used* in the treatment of fractures, I wish to go on record on this point. If the surgeon is to be guided by advice gathered from text-books, he will not resort to it in time to get its full benefits. The most modern of them decry its use as a primary dressing. Now, it is upon this very point, above all others, that I would like to bring the opponents of this method to a fair consideration. They especially oppose it as a primary dressing, as unsafe and dangerous. It is upon this point that I make the issue and file my exceptions.

The reasons offered for their opposition are the swelling and liability to subsequent inflammation of the parts injured. If it could be proved that the plaster dressing is more liable to favor these conditions than other forms of dressing, then the argument would be conclusive and valid. The primary swelling is supposed to be due to blood extravasation, and the secondary swelling is doubtless due to inflammation. To aid in removal of the first, and the prevention of the second, is the business of the surgeon. Reasonable and uniform pressure accomplishes the one, and immobilization prevents the other. If the plaster dressings fulfills these

purposes, then why not use it early? That it does accomplish these beneficial results, and is safe, I, and others bear testimony. If it should be possibly doing harm by too great tightness, etc., it can be removed and re-applied as the case may require.

I might say much more in favor of the plaster splint but do not wish to tire my readers.

Art. III.—Diagnosis of Hydrocele of the Hernial Sac.—A Case.*

By THOMAS M. NORTON, M. D., of Washington, D. C.

R. H. of this city, male, age six years, came under my care, July 26, 1888, the following history being given by his mother:

Several days previous he had fallen from a tree, but hung to a lower limb by his clothes and hands until the mother could run out and take him down. He complained of pain in his left groin all of the afternoon, lying down most of the time; and on putting him to bed that night she found a small tumor at the spot where pain was located. But thinking he had simply bruised himself, she felt no uneasiness. The next morning the tumor had disappeared; it returned, however, soon after he arose, though gave him no pain. It remained all day, subsiding again during the night.

Such conditions continued for several days, when she noticed the tumor was gradually increasing in size; then, for the first time, becoming alarmed, she called me to see him.

Examination revealed a small, direct inguinal hernia, which issued from the external abdominal ring and extended about half way to the bottom of the scrotum. Impulse on coughing was well marked, and the hernia could be easily reduced by taxis, giving forth on reduction the peculiar hernial "slip" or "flop." The gut passed through the external ring directly backwards into the abdominal cavity, not following the course of the inguinal canal to the internal ring, as it would in an indirect or oblique inguinal hernia.

* Read before the Medical Society of District of Columbia. Jan. 16, 1889.

It is probable the hernia had been forming behind the external ring for some time past, and was merely forced through that opening by the strain to which the patient had been recently subjected. I sent him to a truss maker who fitted him with a truss which perfectly retained the rupture. It inconvenienced him for a day or two, until he became accustomed to the pressure, after which it gave him no trouble. He remained under my observation for two weeks, at the end of which time he had resumed all of his former habits—running around and playing with the neighborhood children, just as he had done before the appearance of the hernia.

About the middle of August he accompanied his mother to Boston, and I heard no more of the case until September 2, when I was again called to see him.

His mother informed me that a few days after arriving in Boston, he had complained one evening of the truss hurting him, but she, thinking it imagination, made him sleep in it that night.

The next morning she found the groin very much inflamed and swollen, being quite painful to the touch; and concluding the truss had slipped out of place, she re-adjusted it and allowed him to get up; but the pain soon becoming so intense, she was compelled to remove the truss and put him to bed. The inflammation continued for several days, but gradually subsided—leaving, as she thought, the hernia just as it was before, except that it did not go in during the night as it had previously done. His bowels were open all of the time, and his appetite was good, his food causing him no inconvenience.

On examination, I found a small semi-elastic, irreducible tumor, about the same size and shape, and occupying the same location as the hernia. Impulse on coughing was absent, nor was the tumor influenced in any way by straining movements and changes of position on the part of the patient.

As there was no history of constipation or interference with the digestive organs, obstructed and strangulated hernia were excluded. Hence the diagnosis lay between hydrocele, varicocele, enlarged inguinal gland, and hæmatocele; for as both testicles were in place, undescended testis was not taken into consideration.

The regularity of the surface of the tumor, its unchangableness when the patient was in recumbent posture, and the absense of the characteristic "cordy" feeling excluded varicocele. Its position and shape, together with the history of the case, antagonized a diagnosis of enlarged inguinal gland When examined by artificial light, the tumor was translucent, thus differing from hæmatocele which is opaque under artificial light, as is also an enlarged inguinal gland. Therefore the diagnosis of hydrocele was clear.

The question then naturally arose as to whether I had mistaken a hydrocele for a hernia in the first instance; but a comparison between the former tumor and the one now present dispelled any such idea.

The first tumor gave a marked impulse on coughing, did not fluctuate on palpation, was reducible and easily retained when reduced; but it returned on the removal of the obstruction, and on reduction gave forth the "gurgling" sound which characterizes a hernia, while the second tumor was irreducible, fluctuated when palpated, gave no impulse on coughing, and was translucent under the light test.

Dr. Geo. Byrd Harrison kindly saw the case with me on the following day, and together we diagnosed it "hydrocele of the hernial sac." It differed from hydrocele of the tunica vaginalis or ordinary hydrocele in that this commences, as a rule, at the bottom of the scrotum and progresses upward, gradually filling the entire scrotal cavity; while the hydrocele under observation extended from the external ring to only about the middle of the scrotum, having a separate and distinct sac, around which the scrotum could be freely moved.

Diffuse hydrocele of the cord extending into the scrotal cavity resembles this, but the history of the case contraindicated that affection; moreover, in hydrocele of the cord, when examined by artificial light, the cord is seen in the tumor, and the contents of the tumor can be pressed back into the inguinal canal, returning again on the removal of the pressure; while in the case of the hydrocele under consideration, the cord could be felt behind its sac, external to and distinct from it, and could be traced from the testicle up

to the external ring, thence into the inguinal canal beneath the neck of the sac, and no force could squeeze the contents of the tumor into the inguinal canal.

In encysted hydrocele of the cord, which is sometimes found in this location, any movement of the testicle or cord is reflected upon the hydrocele itself, and the absense of this peculiarity excluded that affection.

Advised by Dr. Harrison, I evacuated its contents with an aspirating needle, and with strips of adhesive plaster and a thin sheet of rubber, placed a light compress over the sac. This was repeated several times, the sac refilling after the operations. About twelve weeks ago, after drawing off its contents, I washed out the sac with a 2-per cent. solution of carbolic acid, since which time the hydrocele has shown no tendency to return.

The literature on this subject, so far as I have been able to ascertain, is rather brief and unsatisfactory.

Drs. McArdle and Kolipinski, after carefully examining the works of foreign as well as American authors, found recorded but 29 authenticated cases of dropsy of the hernial sac. My own incomplete researches have been far less satisfactory. Wyeth, Ashhurst and Erichsen mention the affection as occasionally occurring, and dismiss the subject in a very few words. Gross touches it lightly under the head of hernial hydrocele. Bryant speaks of it as a rare affection, having, himself, experienced but one case which occurred in a man of forty, who for two years had been treated for hydrocele of the tunica vaginalis, and where the true diagnosis was only discovered upon post-mortem examination. Agnew in dealing with the subject makes the following assertion: "The neck of a hernial sac may become obliterated, either from the long continued pressure of a truss, or by a portion of its contents becoming adherent to its mouth. The pouch, below being a serous structure, may become inflamed and dropsical."

Accepting this statement as correct, I think the mechanism of the change from a hernia to a hydrocele in the case just reported, admits of a plausible explanation. From the anatomy of an inguinal hernia, we would naturally expect

to find the most constricted portion of its sac at the external abdominal ring, just as it passes between the tendinous columns, which form the lateral boundaries of that opening. At the base of this opening is found the crest of the pubes, presenting a hard, bony resistance against the pressure of the truss. Now the delicate tissues of the child constricted on one side by this bony wall, and on the other by the truss, became inflamed. The hypertrophied parts pressing together the sides of the corrugated neck, caused the folds to unite, thus obliterating the sac from the abdominal cavity; and the inflamed lining membrane of the sac becoming dropsical, furnished the contents of the hydrocele.

Art. IV.—Trophopathy in Heart Diseases (Opus 266).—A New Standpoint for Cardiac Affections (after Salisbury.)

By EPHRAIM CUTTER, M. D, of New York, N. Y.

(Harv. et Univ. Penn., M. A. (Yale,) LL. D, (Iowa), Hon. F. S. Sc. (London,) Author "Boylston Prize Essay," 1857, on "Under What Circumstances do the Usual Signs Furnished by Auscultation and Percussion Prove Fallacious?" "The Salisbury Plans in Consumption," "Galvanism of Uterine Fibroids," "Thyrotomy Modified," "Primer Clinical Microscope," "The Clinical Morphologies," etc., etc.

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[Continued from Page 883, March No.]

B—*Experiments on Men with Vinegar in Excess in their Diet.*

Four strong, healthy men, A, B, C, D, selected from one hundred laborers, were fed on vinegar in sweetened water as an exclusive diet, while they ate the ordinary conventional diet of boiled and roasted meats and vegetables, and bread for dinner and supper, and had potatoes and bread for breakfast. The vegetables made up about twelve times the bulk of the meat,—that is, twelve mouthfuls of food from the vegetable kingdom, to one of food from the animal kingdom. Three ounces of strong cider vinegar in half a pint of sweetened water at each meal were used by each man, and the same amount from two to three hours after breakfast and dinner. Thus fifteen ounces of vinegar were consumed daily by each man. The only exercise had was

a walk of one hour morning and evening. (See Bibl. A—No. 7.) The following results were observed:

First Day. A slight watery and congested condition of all of the mucous membranes.

First Night. All slept soundly.

Second Day. P. M., all felt more or ' uncomfortable with flushes of heat, watery eyes, pulse quickened, flatulence in motion all the time, sour eructations.

Third Day. A—Had considerable colic, very flatulent, flushes of heat towards evening, bowels moved once, urine free, appetite good.

B.—Had some colic, fever, watery eyes, flushed face, with good appetite.

C.—Very flatulent, face flushed, eyes and fauces watery. Constipated movement; appetite good.

D.—Same as C, with no movement.

Fourth Day. A.—Appetite fair, bowels bloated, much discomfort; action of heart increased on exertion, eyes and fauces congested and watery, no movement, sleep somewhat disturbed. Blood under microscope found to be getting ropy and sticky.

B.—Appetite fair, much bloated and uncomfortable, oppression on breathing, heart's action accelerated on exertion; at times feverish, eyes, nose and fauces congested and watery, tendency to sneeze, urine free, no movement.

C.—Appetite good, much bloated, very uncomfortable from colic and moving wind, blood becoming ropy and sticky, easily excited and nervous, eyes and throat watery, tendency to sneeze, feels tired, urine free, no movement.

D.—Appetite fair, bowels bloated from flatus, feels tired on exertion, *pulse accelerated and easily excited*, blood becoming ropy and sticky, eyes and nose watery, urine free, no movement.

Fifth Day. Appear as if they had taken cold, B, C, D.
Appetite only moderate; A, B; poor, C; fair, D.
Blood ropy, and sticky and stringy, A, B, C, D.
Breathing oppressed, A, B, C, D.
Constipated, A, B, C, D. Eructation, acid, B, D.
Eyes and fauces, watery, A, B, C, D.
Feverish, A, B. Flashes of heat, A, B, C.
Head mixed, A, B. Confused, D.
Languid and feels tired on exertion, A.
Pain in heart, A.
Perspiration sour, A, B, C, D.

Pulse 80–86, A, B.
Rheumatic pains in joints, A, B, C, D.
Singing in ears, A. Ringing B.
Sleep disturded by dreams, A, C.
Uneasy and restless, D. Sneezing, occasionally, A.
Stomach acid, A, B, C, D,
Urine free and cl[illegible], B. High colored, C, D.
Urine contains bile, A.
Very flatulent with colic, A, B, C, D.
Vinegar yeast in blood, A, B, C, D.

Sixth Day. Bowels distended with flatus, A, B, C, D.
Colic, A, B, C, D. Eructations, A, B, D.
Ears ring, A, B, C, D.
Head mixed, A, C, D. Confused, B.
Eyes and fauces congested and watery, A, B, D; scalded as with a cold, C.
Face flushed and feverish, D.
Feverish at times, A, B.
Hacking cough at times, A, B, C, D.
Movement, light-colored, small, hard, with much wind, A.
The same, followed by looser movements, B. The same, C, D.
Neck glands begin to enlarge, B, D.
Pains in knees, hands and shoulders, A, B, C, D.
Perspiration sour, A, B, C, D.
Pulse, 85–88, A. Sleep disturbed, A, B, C, D.
Shooting heart pains, A, B, C, D.
Urine high colored, and moderate, 1026 density, A; 1028, B; 1029 and scanty, C; 1030, scanty, D.
Very nervous, C.
Vinegar yeast increasing in blood, A, B, C, D.

Seventh Day. Acid stomach, A, C.
Bowels much distended with wind, A, B; painful C. D.
Breath smells sour, A, D.
Blood very ropy, stringy and sticky, A; The same, but less tenacious, B. C. D.
Breathing oppressed, A, B, C, D.
Constipated passage followed by two loose movements, A, B.
Colic severe, A, B, C, D.
Coughs, and expectorates a tough mucus, A, B, C, D.
Eructations sour, A, B, C, D.
Eyes, nose and throat, congested and watery, A, B, C, D.
Fever and chills, A, B.
Head confused, A, D; mixed, C.

Limbs prickle and get numb at times, A, B, C, D.
Neck glands swelling, A, B, C, D.
Pains in knees, feet, ankles, shoulders and wrists, A, B, C, D.
Perspiration sour, A, B.
Pulse, 87–90, A; 88–92, B; 87–91, C; 88–91, D.
Ringing in ears, A.
Shooting heart pains, A; Heart aches, C, D.
Singing in ears, B, C, D. Sleep uneasy, A.
Throat has a scalded and sore feeling, A, C, D.
Two large movements, B. One large, loose movement, C.
Urine, high-colored, scanty, 1030 density, A; the same 1031, B; 1032, C, D.
Vinegar yeast increasing in blood, A, B, C, D.
Numbness in head, D.
Difficulty in swallowing often, C.
Diaphragm partially paralysed, C, D.
Breathes by elevating shoulders, showing the diaphragm paralysed, D.

Eighth Day. Blood ropy and sticky, but less tenacious, A, B, C, D.
Bowels very flatulent and full of pains, A, B; cold prickly feeling over them, C, D; constant rumbling of gases, D.
Breathing short and labored in exertion, A, B.
Cough severe at times, A. Troublesome, expectorating tough mucus, B, C. Mucus ropy, D.
Darting pains in heart, A, B.
Difficulty in swallowing, A, B, C, D.
Eyes, throat and nose congested as with a cold, A, B. Hot, C.
Fevers and chills, A, B, C.
Glands of neck considerably swollen and tender, A; much swollen, B, C.
The same and salivary glands, D.
Head confused and aching, A. Dizzy shooting pains through it, B.
Mixed, C. Head feels numb, A, C.
Heart beating spasmodically at times with trip-hammer tendencies, indicating the beginning of thrombosis, B.
Heart beating spasmodically with marked intermissions, C.
Perspiration sour, A, B, C.
Pulse, 88–92, A; 89–93, B; 90–92, C; 89–92, D.
Ringing in ears, A, B, C, D.
Severe automatic pains in legs and arms, with numbness and prickly sensations, A, B, C, D.
Staggers in walking, A: reels, B.

B. Anatomy shows that the heart is covered all over with nerves and ganglionic nerve centers and nerve fibers, so much so that careful dissection reveals the muscular tissues clothed, as it were, with a neural investment of multipolar nerve-cells and centers.

If I remember rightly, some of the nerve centers I noted in my medical pupilage, were half an inch in diameter. Any one of these nerve centers is big enough to run a heart, —that is, since a new born larva of a common fly, about one-eighth (1-8) inch long and one-thirty-second (1-32) inch wide, can do, as will be described, better than any human being just born could have done under the same circumstances.

Incident.—Some years ago, I saw a fly depositing living larvæ in fresh human fæces. The interval between the births of the successive larvæ was long enough to count 1, 2, 3, at the rate of 44 per minute, as a rule, with some exceptions. When the delay was longer than 1, 2, 3, 4, 5, 6, 7, 8, 9, the last larva born, which was wriggling away from its mother, and had gone quite a distance—several times its length—turned right about face, went to the mother, reached up and yanked out the detained larva without a false motion, surely and deliberately, and then went about its own business. I saw this done thrice. Such a procedure involves three questions:

(1.) How could the larva know there was trouble?

(2.) Knowing the trouble, how could it do its work like a professional obstetrician, faultlessly?

(3.) How could three larvæ do this in succession as soon as born?

I leave these queries to be answered, only saying that whether it was instinct or not, there was nerve force at work in this work; and if a larva one-eighth of an inch long can do what surpasses *human* nerve forces just born can do—if such an organism, so much smaller than any of the ganglionic nerve centres of the human heart, is automatic, why may not the human heart nerve centres be automatic also?

C. *Physiology.*—If it can be shown that the heart beats apparently after death or when severed from the body,

there is then evidence of automation. Once I killed a large mud-turtle for food. To my astonishment, the heart of this saurian, when entirely removed, held in my hand or on a support, beat regularly for more than twelve hours.

Case 9—of the swine, dead of hog cholera—when autopsied showed a heart beating spasmodically after death.

D. *The Heart is Big Enough to be Automatic.* See the larva example quoted under B. Take amœbas. They may be so small as to require amplification of 300 diameters under the microscope, and yet they are automatic. Some think they have the senses of smell, sight, touch, hearing, etc. It is not necessary for these purposes to have the same instruments as are found in man. So of the actinophrys sol, the rhizopod, cratera difflugia, which I have seen to manifest automation. These show that the heart may be automatic so far as size is concerned.

E. *Bible Evidence.*—It is not the fashion for science to quote this Book of Books; but I am not ashamed to do it. While it may not be a book of science, it describes the doings of organs in such a way as include their autonomy. On looking at Young's *Concordance*, I find, if I counted correctly, 925 references to the heart. Many of them are figurative, but a great many indicate autonomy. The words are inspired by the Creator of our bodies, who "knows our frame." If any reject this evidence, I call on them to go and live where the Bible never has been, and compare the society there with the society where the Bible has been. The Bible has no favors to ask of the world.

Let me quote a few references to show the autonomy of the heart:

Genesis vi. 5, The imaginations of the thoughts of his heart; vi. 6, Grieved him at his heart; viii. 21, Said in his heart; xviii. 5, Comfort ye your hearts by eating; xlv. 26, Heart fainted.

Exodus vii. 22, Heart was hardened, and many others; xxxiv. 35, Wisdom of heart.

Deut. xxix. 4, Heart to perceive.

2 *Sam.* xix. 19, Heart take it to.

2 *Chron.* xxxii. 26, Pride of heart.

Job xxxi. 9, Heart deceived.

Sleep disturbed, A; uneasy, B.

Throat feeling scalded, A, B, C.

Trip-Hammer pulsations begin, indicating fibrinous deposits in and near the heart, A.

Two loose profuse yeasty movements, A; three of the same, B, C.

Unsteady on legs, C.

Urine high-colored, scanty, 1032 density, A; 1032, B; 1032, C; 1031, D.

Vinegar yeast increasing in blood, A, B, C, D.

Trip-Hammer pulsations marked, indicating fibrinous depositions, or the beginning of thrombi, D.

On the morning of the ninth day a breakfast of broiled beefsteak was ordered. An hour before the meal each drank a goblet of hot water, in which was dissolved two drams of bi-carbonate of soda. This sweetened the stomach and made all feel comfortable. The breakfast was relished, each having a broiled beef-steak and a cup of clear tea. Between 6 A. M., and 12 M., each had from three to four large, profuse and yeasty movements, which cleaned out the bowels so that all were greatly relieved from flatulence, oppressed breathing and colicky pains.

One and a half hours before dinner, each drank two goblets of hot water, in which were dissolved two drams of bi-carbonate of soda, with great relief. Ordered for dinner broiled beefsteak and a cup of clear tea, which all enjoyed. The afternoon was one of comparative comfort as they were all quite free from flatulence, rheumatic pains, numbness and oppressed breathing. One and a half hours before supper each drank two goblets of hot water, in which were dissolved two drams of bi-carbonate of soda, which made the stomach quite sweet and comfortable. Ordered for supper broiled steak and a cup of clear tea for each, which all enjoyed very much. Half an hour before retiring each drank two goblets of hot water, in which were dissolved two drams of bi-carbonate of soda. Retired at 9 P. M., in an enjoyable frame of mind. Had a restful night. On the morning of the tenth day, all were called at 5 A. M., to take two goblets each of hot water, in which three drams of bi-carbonate of soda were dissolved. This was taken in bed after which all were rested for an hour, and then had a breakfast of beefsteak and clear tea, which was greatly relished. No movements of the bowels till after breakfast, when each had from two to to three profuse, but much less yeastly movements between this time and 11 A. M.

All were feeling remarkably well and almost free from the confused, numb and painful feelings. The troublesome flatulence had disappeared. One-half hour before dinner, each drank two goblets of hot water, in which were dissolved three drams of bi-carbonate of soda. Had for dinner beefsteak and clear tea, which were greatly enjoyed. No more movements of the bowels. One and a half hours before supper, each drank two goblets of hot water, in which were dissolved three drams of bi-carbonate of soda. Supper at 6 P. M., of beefsteak and clear tea. All ate heartily and felt exceedingly well. Half an hour before retiring each drank two goblets of hot water, in which were dissolved two drams of bi-carbonate of soda. Retired with comfortable stomachs and clear heads. Had a refreshing night's sleep.

Awakened at 5 A. M. on the *eleventh day* to drink hot water and bicarbonate of soda. At 6 A. M., had a breakfast with clear tea, which was greatly relished. After breakfast all were feeling so well, having had no movements of the bowels, flatulence, aches or dizziness, that it was thought best to close the experiments. (Bibl., A—No. 7.)

But say you, your case did not live on vinegar nor slop; to prove your point you must show there was vinegar produced in his diet. As the man is dead and buried for a quarter of a century, it is, of course, impossible to take him to experiment with; so we must take others in health and give them a diet which largely enters into that of the decedent, feed them exclusively on it, and see if there are any heart symptoms. The decedent lived on wheat bread (common flour bread) *mainly*, with sugar and vegetables in excess to the proportion of about $\frac{1}{12}$th meats to $\frac{11}{12}$ths food from the vegetable kingdom. The foods derived from flour are or were mainly starch. These ingested, changed into glucose, which is used up in the system of health; but if detained in the alimentary canal, ferments, forming alcohol, carbonic acid gas, *vinegar*, water, succinic acid, etc. The blood becoming acid, clots; the fibrin filaments are shortened and thickened; the white blood corpuscles become sticky; thrombi are formed in the heart as a favorite site; emboli are found, and hence you have cardiac thrombi made up of fibrinous concretions, which caused the death of the decedent.

Suffer the introduction of some experiments with crackers of the hard tack variety, causing an unhealthy alimentation, to illustrate the subject before us.

C—*Experiments in Feeding Crackers or Hard Tack, with Special Reference to the Heart.* (See Bibl., A—No. 7.)

Resumé. 1. The constipation.

2. Alcoholic and vinegar fermentation in alimentary canal.

3. Increase of 2; worse at night and towards evening.

4. Irritation, commotion, distension and paralysis of intestines producing chronic diarrhœa.

5. Cough.

6. Palpitation of heart on any excitement.

7. After 4, *Fibrinous depositions in the heart. Thrombosis and embolism.*

Diet of hard tack, water, and two ounces of whisky daily.

Mr. H., aged 36, 150 pounds weight, five feet ten inches height.

Mr. B., aged 40, 158 pounds weight, five feet nine and a half inches height.

Mr. S., aged 38, 152 pounds weight, five feet nine inches height.

First Day. Ate and slept well. H, B, S.

Second Day. Not much change. H, B, S.

Third Day. H constipated. B constipated, bloated, thirsty, dizzy and confused. S, the same, no movement.

Fourth Day. H, flatus and less muscular vigor. B, lassitude, bloated much. S, the same; feels dull. Not much inclined to move.

Fifth Day. H, constipated. B, prickly in feet and limbs. B, the same; colicky pains.

Sixth Day. H, flatus, throbbing heat in lower part of large intestines. B, the same with creeping chills. S, hands and feet prickly.

Seventh Day. H, head mixed and confused. B, the same; hands and feet prickle. S, the same; dreaming during sleep.

Eighth Day. H felt mixed and confused dizziness all day, with want of muscular vigor. B, *heart flutters* on any severe exertion. S, very flatulent.

Ninth Day. H, lower bowels partially paralyzed. B feels as if he were getting crazy. S, very languid.

Tenth Day. H, no passage; prickly in feet and hands. B, S, scant, pale, ash-colored putty-like fæces.

Eleventh Day. H, numb and dizzy in head; feet and legs prickle, and feel heavy, and not under the best control. B, S, sleep troubled with dreams.

Twelfth Day. H, lower bowel more inactive; legs and feet numb; walks clumsily; pains in small of back. B, head mixed and confused; a swimming sensation on lying down. S, *heart palpitates on any exertion;* pulse intermits one beat every 4 to 6; drags the feet in walking.

Thirteenth Day. H, legs often "go to sleep;" shuffling walk; soles of feet seem cushioned. B, *heart palpitates on much exertion*; stumbles in walking; pain and weakness in back. S, head numb, mixed and confused; feet and hands prickle; losing control of limbs.

Fourteenth Day. H, peculiar, dead numbness about the head; drags feet in walking; wakeful. B, the same; head swims on lying down; *heart palpitates* on exertion. S, *heart palpitates on exertion;* sciatic pains; reels in walking; soles of feet as if cushioned.

Fifteenth Day. H, weak and numb in head, legs and lower bowels; drags feet in walking. B, cannot pass flatus; *heart palpitates on exertion; pulse irregular.* S, *the same.*

Sixteenth Day. H, no change for better. B, *heart palpitates.* S, *heart palpitates;* feels very weak.

Seventeenth Day. H, numbness, and inability to control feet and legs increasing. B, the same; *heart palpitates on exertion.* S, *heart palpitates on exertion;* less control of limbs.

Eighteenth Day. H, free movement, trips easily, shuffling gait; throbbing heat in rectum. B, bewildered and numb; *heart palpitates and intermits; breathing oppressed; feels as if he could not get air enough in lungs to satisfy; often draws a long breath.* S, head feels as if a band were drawn tight around it; *heart palpitates*; losing control of legs and feet.

Nineteenth Day. H, no passage; same as on eighteenth day. B, loose bowels. S, about as yesterday as to condition.

Twentieth Day. H, eructation; loosing use of legs. B, yeasty discharge; feet and hands prickle; gait unsteady. S, head swims on lying down; quite bewildered at times; *heart palpitates on exertion; breathing oppressed.*

Twenty-first Day. H, about 4 P. M., severe bearing down pains in lower bowels, followed by copious stool; afterwards felt well, save weakness and disagreeable paralytic symptoms. B, large, bulky, mushy, yeasty passage at 3 A. M.; gait unsteady; head mixed, and confused memory; extremities numb and cold. S, 6 A. M., profuse, mushy, yeasty, windy passage; losing control of legs and feet.

Twenty-second Day. H, gait unsteady; losing use of lower extremities. B, walks with difficulty. S, hard to collect his ideas, and memory very poor.

Twenty-third Day. H, B, S, saccharomyces and mycoderma found in fæces; extremities cold and numb; cramps in legs; B, diarrhœa; ideas confused. S, *heart palpitates and intermits;* drags feet in walking.

Twenty-fourth Day. H, six profuse passages between 2 A. M. and 10 A. M.; wabbling walk; falls when closing eyes; fears to carry experiments further. B, Diarrhœa; six movements; cannot retain an upright position after closing eyes; head confused. S, nine movements between 2 30 A. M. and 11 A. M.; could not stand upright on closing eyes; walks with a shuffling gait.

Twenty-sixth and Twenty-seventh Days. Changed to beefsteak diet, which was followed immediately by recovery. The blood contained enlarged fibrin filaments, stringy or in skeins, or thrombi.

The palpitation of the heart and oppressed breathing came also from the partial paralysis and weakness caused by the absorbtion of the carbonic acid gas, vinegar, etc. The connection of these symptoms with those of locomotor ataxy is marked and striking.

D.—*To show further the effects of unhealthy alimentation on the heart,*

The experiments with oat-meal are appended, as oat-meal is thought to be healthy and strengthening, but is really fit only for horses and herbivora.

There is no doubt but that its use causes many deaths at the present time; and if it is said "the Scotch thrive on oat-meal," it is in spite of, not from it.

Oat-meal as an exclusive diet, with seasoning of pepper, butter and salt, cold water between meals, one pint of coffee with sugar and milk for breakfast, dinner and supper.

Four healthy, vigorous men, A, B, C, D, 23–38 years of age.

"Porridge," cooked three hours, the form. (See Bibl., A, No. 7.)

Extract of symptoms relating to the heart.

Tenth Day. A, palpitates on much exertion. B, palpitates on any over-exertion. C, palpitates on over-exertion. D, the same.

Eleventh Day. A, heart palpitates on exertion. B, palpitates on over exertion. C, heart palpitates on much exertion; breathing oppressed when walking fast. D, heart palpitates on exertion; breathing short and hurried.

Twelfth Day. A, neuralgic pains in heart; oppressed breathing on over-exertion. B, heart weak and beating irregularly; sitting pulse, 66 per minute. C, pulse inter-

mits, losing every fourth or fifth beat; sitting pulse, 62 to the minute; oppressed for breath on over-exertion. D, heart palpitates on severe exertion, losing every third or fourth beat; pulse, 58.

Thirteenth Day. A, heart irregular in its beat; pulse about 60, sitting; breathing oppressed when exercising much. B, heart beats irregularly—59 to the minute, sitting. C, heart beats irregularly, and 62 to the minute; palpitates on exertion. D, heart irregular—58 to the minute; breathing oppressed on much exertion.

Fourteenth Day. A, heart palpitates on exertion. B, pulse irregular, and 58 to the minute; breathing oppressed on exertion. C, heart palpitates on over-exertion; pulse 57 to the minute, and irregular; breathing short, and oppressed on exertion. D, heart palpitates on over-exertion, and breathing oppressed.

Fifteenth Day. A, heart irregular; pulse, 56. B, pulse, 58, irregular. C, heart palpitates on exertion, and misses every fifth or sixth beat. D, pulse irregular, 58; any over-exertion causes oppressed breathing and palpitation.

Sixteenth Day to Twenty-fourth Day. A, heart more irregular in beat, and increased palpitation on exertion, with oppressed breathing. B, heart beats irregularly; breathing oppressed on exertion. C, heart palpitates on exertion; breathing oppressed. D, heart palpitates on much exertion, breathing becomes oppressed and short; neuralgic pains in heart, left arm, back, and left leg.

Twenty-fifth and Twenty-sixth Days. A, heart palpitates on the least exertion. B, heart palpitates on exertion; its beats are irregular.

Twenty-ninth Day. C, heart palpitates irregularly, and 45–48 per minute.

Thirtieth Day. Gave up experiments, and put men on beefsteak and coffee. *In four days they were well.*

E.—*Etiological and Pathological Conclusions.*

If either animals or men feed too freely upon sour foods and drinks, which are undergoing or have undergone acid fermentation; or upon foods not yet sour, but sure to become so as soon as they enter a digestive apparatus already charged with acid yeasts, the sour products pass more or less rapidly into the circulation, making the blood acid, sticky, ropy and adherent and the fibrin filaments tough, thick and short. These changes cause a partial clotting

of the blood in the blood stream. This partial clotting makes the blood mucilaginous, adhesive and stringy. It also renders the sticky, colorless corpuscles and fibrin filaments liable to fasten themselves to the walls of the vessels. The most favorable place for these attachments to take place is in or near the heart. They are at first small, consisting of a few sticky cells and filaments; these minute beginnings grow, by constant additions, from the sticky materials of the blood stream; they become long and flagellate, and their growing masses are constantly whipped by the flowing blood stream. The place of attachment is usually small, the mass becoming bellied or fusiform, tapering at both ends, and growing more rapidly in the middle. *Thrombosis* is the name of this condition.

Sooner or later these thrombi are liable to break from their fastenings, and go floating along in the blood stream as emboli. Now comes in the danger of embolism, or the sudden plugging up of the smaller arteries, extremities, and capillary vessels. As long as the thrombi remain anchored, or held to their fastenings, there is but little danger of death, although they may produce great discomfort. The more quiet the mental and physical state, the less the danger of tearing them loose. The greater the exertion, the greater the danger. (The case noted in the introduction died when they had not broken loose.)

When they do break loose and block up the capillaries and smaller arterial extremities in any organ, a sudden damming up of the blood in the part takes place, accompanied often by "trip-hammer" pulsations of the heart, effusions of serum, inflammation and frequently the rupture of blood vessels in the part or parts, followed by death in from four to forty-eight hours.

This is precisely what occurs in animals and men—when sour foods, too exclusively and continuously eaten, produce too great and rapid acidity of the blood. This often occurs in the disease in swine, known as "hog cholera" or consumption of the bowels, and in man sometimes in the so-called chronic diarrhœa or consumption of the bowels.

Both of these diseases are phases or states which may

arise from too rapid infiltration, or saturating the system too quickly and suddenly with acid and acid yeasts. The same foods that produce these states might be taken without serious results if they could be given in small quantities at first, and gradually increased, allowing the various organs to accustom themselves to caring for and to eliminating the deleterious products, so that they should not accumulate in the system. This mode of taking such foods combined with proper exercise and surroundings, would maintain a passable condition—though not a healthy one—for a long time.

Thrombosis then is a result of unhealthy alimentation which, to repeat for the sake of emphasis, may be defined as follows:

By "unhealthy alimentation" is meant the too exclusive, too long continued feeding upon any one kind of food. This species of feeding over-taxes those portions of the alimentary canal designed for digesting this particular character of aliment and over-taxes them so far that the digestive process soon becomes imperfect, and fermentation gradually supervenes.

The blood before long begins to show signs of deterioration, and the physiological processes of the various tissues, depending upon good blood for their healthy support, are gradually disturbed; hence pathological states of the histological elements arise by degrees. The normal processes of cell feeding, cell digestion, cell assimilation, cell organization and cell elimination all become more or less deranged, and the various organs and tissues being supplied with abnormal, imperfect material for carrying on their normal functions in a physiological manner, yield step by step to pathological invasions and palpable disease soon results.

The abnormal states produced by a too exclusive amylaceous and saccharine diet, differ from those produced by one that is too exclusively carnivorous. The former present themselves where the diet is exclusive, highly fermentable and profuse, while the victim is leading an inactive or sedentary life and presents the following interlinked sequences:

(a.) Yeasty, gaseous, highly deranged, half paralyzed state of the alimentary canal and nervous system conjointly, with a marked tendency to fibrinous deposits as thrombi in the heart and large vessels leading to it.

(b.) These fibrinous deposits break loose from their fastenings and constitute emboli.

(c.) They float along the blood stream, and if too large to pass through the capillaries they are:

(d.) Liable to be caught up by these vessels in the lungs, mesentery and other organs or in the extremities, there producing embolism.

When less exclusive and less excessive, this kind of feeding may not eventuate in thrombosis and embolism. But if long adhered to, it may partially paralyze the mucous surfaces of the digestive organs, when the following states are caused and ensue in the order set forth:—

The heart is nearly, if not always, more or less involved in the disease. There is a disposition to fibrinous deposits in the cavities of the heart and the vessels leading to and therefrom, producing the disease described by Virchow as "thrombosis."

Granules, layers, conical masses and ropes of fibrin, usually of a white color, are found attached to the internal surface of the cavities of the heart around the valves; also ropes of fibrin sometimes extend out into the vessels leading therefrom. There is often more or less effusion into the pericardium as well.

Enlarged heart without heart-clot or thrombosis. Here we find:

(a.) The ropy, sticky, adhesive, red and white blood corpuscles.

(b.) The enlarged and thickened fibrin filaments.

(c.) The microscopic thrombi.

(d.) The crystalline masses.

The heart grows bigger from the increased amount of work. Remove that work by removing a, b, c and d from the blood, and the heart comes down in size of itself.

Fatty heart.—Here is a replacement, more or less complete, by fat of the muscular substance of the heart. It is

a very common disease, and goes along with Bright's disease, apoplexy, hemi- and para-plegia, fatty liver, muscles, and so forth, and depends on want of exercise and improper food.

We need a new nomenclature to express these diseases, for as it is, we are going by the lines and plummets of an age which knew not the real significance of these diseases.

Since the heart works all the time, it is clear that fatty degeneracy does not come to it *wholly* from want of exercise. It comes from fat, starchy, sugary foods, from glue tissue foods; and *can be cured* by stopping such foods, and living on broiled beef alone, chopped or unchopped. The etiology does not lie wholly in the fact of the food being fat producing, but also in the fact that such foods ferment into alcohol, vinegar and paralyzing gases which act on the tissues involved.

It is wonderful how quickly the heart responds to this *hearty* food. If you want to feed the heart, eat beef exclusively.

Fatty degeneration is really a saving process, and gives time for repair and repentance of food sins. Were it not for fatty degeneration, there would be more deaths and sooner. Phosphorus has the power to produce fatty degeneration of the heart. I once saw the fatty degeneration of the muscular fibers of the heart in a case of phosphorus poisoning, where death occurred, I was told, in twenty minutes from the time of taking the poison. Cataract, which is a fatty degeneration, is produced in the same time, by the injection of one-teaspoonful of a saturated watery solution of common sugar under the skin of a guinea pig or frog.

These facts show a wonderful rapidity in the nutritive process of animal system.

Angina Pectoris.—Case two (see farther on) was subject to fearful attacks of angina pectoris—so much so that I daily looked for her death; yet she has not had it for years, after living on the plans named here. It is very easy to explain the calcification of the coronary arteries, usually found associated with angina pectoris, in the deposit from the blood of the crystalline bodies, to which reference has been made.

Atrophy of the Heart.—This comes from the wasting of tissue which fatty degeneration prevents. It is a disease of mal-nutrition.

Inflammation of the Heart, outside, in and within, is explained by the embolism that comes from the fibræmia. Vessels are blocked; stasis results; when the stasis is passive, congestion results, but when it is active, we have inflammation. Were the blood perfectly healthy and free from thrombi, sticky, red and white corpuscles, fibrin filaments increased in quantity or strength, there would be no inflammation.

Dropsies and Effusions are explained by exudation of blood from parts blocked up by embolism in active inflammation.

Stony Heart.—Cases have been known where the pericardium was filled with bony or stony material, giving an example of physical "stony heart" which the Bible refers to as typical of a condition of mind. Why it (the gravel) should be deposited in the pericardium is no more strange than why it is found in the trachea, thyroid cartilage, joints, hands and feet, as in gout and chronic rheumatism. This gravel is in the blood in such excess that it is deposited in the tissues. It comes with thrombosis and is one of the results of unhealthy alimentation.

F.—*Easy Proof of these Statements.*

(1) Vinegar; (2) Oat-meal; (3) Crackers; (4) Men; (5) Swine.

All are easy to be had. You do not have to cross the ocean. They are not trans-Atlantic. The experiment can be tried on the person of the reader. Indeed, the writer tried these experiments for a series of years, much to his sorrow and detriment of health. He speaks from personal experience in himself and members of his family, one of whom was the decedent alluded to at the start and whose case the writer supposed was hereditary.

But as the feeding of families is alike, and produces results somewhat alike, so we may say:—

Heart disease is not hereditary, but is a *family disease,* because families feed alike. This repetition is designed. The

sooner we charge disease to real—not imaginary—causes, the better will be the art of medicine.

Again, the readers who doubt, can test for themselves on themselves the truths of these reports by feeding themselves singly on the substances named, and make it a matter of personal experience. Again, they can do this on swine or other animals.

At any rate the facts presented here must be met with facts, not opinions, unbased on facts. One need not use the microscope, for the macroscopic symptoms and appearances are enough. But there is no difficulty in the detection of the abnormal forms in the blood under the microscope; only have a good one-fifth or one-tenth inch objective, made so that it will not hurt the eyes.

Again, the blood should be examined as close as possible to the blood stream, in time and place, and watched from fifteen to thirty minutes, as it takes that time to bring out the fibrin filaments to the best advantage. (Bibl., A—7, B—13).

III. Autonomy of the Heart.

Is the heart an automatic, independent, nerve center like the head? That is, as automatic in its way as the head is. We think it is. For the following reasons:

A. Analogy; B. Anatomy; C. Physiology; D. As it is big enough; E. Bible evidence.

A. Analogy.—The head, the breasts, the lungs, the liver, the kidneys, and the skin are automatic, and have a special work to do in the economy that no other organs can do.

As to the head:—The eyes see, the ears hear, the brain cerebrates, etc., etc.

As to the breasts:—They secrete milk at a time when needed; no other organ secretes milk.

As to the lungs:—They breathe.

The liver secretes sugar and bile. The kidneys, urine. The skin, sweat, etc., etc. They are all automatic.

The heart has its immense unceasing vital work to do during life, and must be automatic from analogy.

Psalms xxii. 14, Heart like wax; xxxiv, 18, Broken heart,—of which our Lord Jesus Christ died on the cross (see Stroud "On the Physical Cause of the Death of Jesus Christ," D. Appleton & Co., 1847, Appendix A); lxi. 2, Heart overwhelmed; Psalms civ, 15, Wine that maketh glad the heart); cxix. 70, Heart as fat as grease.

Proverbs xiii. 12, Heart sick; xiv. 30, Sound heart is the life of the flesh; xv. 15, A merry heart hath a continual feast; xxvii. 9, Ointment and perfume rejoice the heart.

Jeremiah xvii. 9, Heart deceitful.

Lamentations i. 20, Heart timid.

Ezekiel xxxvi. 26, A new heart, a stony heart, heart of flesh.

Zechariah ix. 7, Heart as an adamant stone.

Isaiah i. 5, The whole head is sick and the whole heart faint.

This is a remarkable passage, for if taken figuratively there is seen a distinction as marked as in the passage Psalm xiv. 1, "The fool hath said in his heart, there is no God." I have heard this comment made: "He was not fool enough to say this in his head; he knew too much for that."

Here the distinction between the head and heart is marked; both are spoken of as equally automatic; and this is the point I wish to establish here. In the Bible, I find 410 references to the head, which are about half the references to the heart; so that the Bible makes more than double the attention paid to the heart than to the head. The head may be right and the heart wrong, but both appear to be automatic all the while.

In the case (*ut supra*) of the hogs that died of ruptured heart, it is spoken of as ruptured in trying to get rid of the thrombi.

Again, trip-hammer beats in thrombosis are regarded as the violent efforts of the heart to get rid of the clots. Now these references point out an autonomy as clearly as the Bible does.

F. *What, then, is the indication from this autonomy of the heart?*

It is that the heart does its best to do its work, night and day, ceaselessly. It has to do its repairs without resting. We break a limb; tie it up, rest it and keep it still. Not so

the heart when ill; on the contrary, it has to work harder, or life goes out.

The conclusion is: Not to whip it up to do more work when it has too big a load already.

Not to tone it down by sedation, as the increased action comes from more work to do.

Not to weaken.

On the contrary, the heart must be strengthened, toned up, and besides not tormented with gases, vinegar-thrombi, sticky and adhesive blood caused by eating to please civilization's demands made by ignorant cooks, waiters and caterers—to please depraved appetites and desires by eating those things that are sweet because they are good to the taste. But the physician and patient should seek food which makes good tissues and does not ferment in the alimentary canal. They should follow the instructions of medical skill in cookery, and help the heart to do its work well, easily, and with the least friction. The heart should not be subject to such physical and mental abuse as to cause it to rend itself in twain in trying to do its work, as has been done. This brings us to therapeutics.

[TO BE CONTINUED.]

Clinical Reports.

Case of Placenta Prævia Centralis, with its Successful Management.

By R. RANDOLPH BALL, M. D.,

ASSISTANT SURGEON U. S. ARMY, FORT LEWIS, COLORADO.

On October 20th, 1888, after returning from duty in the field, I was requested to attend a case of expected confinement—Mrs. W., white, age 22, multipara, a fairly robust, healthy-looking blonde. I visited the patient, and, on questioning her, found she had been suffering with (as she expressed it) a return of her monthlies, while pregnant, for several weeks past.

This hæmorrhage had at first come on suddenly, withou apparent cause. Of late, each time the quantity had in-

creased; and on the previous night, during sleep, quite a discharge of blood had occurred, thus awakening her. The patient seemed much puzzled at her "monthlies" returning during pregnancy. Strongly suspecting the true nature of the case, I re-assured her, on general principles, and then made digital examination.

The os was found moderately soft; the cervix slightly elongated and enlarged. On entering the finger and carrying it up to the inner os, some resistance was felt. A peculiar "wormy mass" seemed to occlude the os internum. This "mass" seemed rather firmly adherent to the right side of the uterine wall, so that, by gentle pressure, the finger could only enter the cavity along the left cervico-uterine wall. After a careful examination and elimination, I diagnosed placenta prævia centralis.

The question of hæmorrhage being of primary importance—the history of the case showing it had increased in quantity and frequency—rendered the conclusion that *operative* interference was essential, for the mother's welfare, at least. Though not unmindful that most authorities advise a tentative course in such cases—especially if the hæmorrhage occur previous to the seventh month—I at once introduced a carbolized tampon around the cervix, leaving it *in situ* for 24 hours This use of the tampon was repeated several times.

On renewing the last one, the whole cervix was found softer, the os more patulous, and hæmorrhage had been temporarily controlled. Still, dilatation was not sufficient to proceed to delivery, and normal pains had not set in—which I had rather looked for after the tampon. Barnes' rubber-bag dilator (next to smallest size) was then carried well up, so as to enter the inner os, and gently expanded with warm water. After three or four hours, the next size was likewise introduced. At the end of five hours this was removed, the dilatation being sufficient to admit two fingers easily, and strong pains having come on. I then carried two fingers well up and detached the placenta around the inner os as far as it could be reached, at the same time rupturing the membranes. After detaching the placenta, it was noticeable how it receded up the side slightly, when the membranes and fœtus pressed downward, thus checking the hæmorrhage, which had been quite profuse at the time of detachment.

Having accomplished this, I was enabled to make out the position—a breech case (left dorso-anterior). The pains

being good, I hoped then to leave the case to nature. These pains continued very effective till the child had reached the mid-plane, when they ceased wholly, a condition of inertia coming on.

The woman being very nervous and excited, as well as much fatigued by the amount of pain incident to the preliminary treatment, and no rational indication existing to justify a further delay, the question was between ergot and the forceps. Owing to the impossibility of knowing *exactly* how far the placenta might still be attached, as well as other reasons, I decided in favor of the forceps.

A few whiffs of "alcohol, chloroform and ether mixture" were then given, and the forceps applied to the breech, which was gently brought down to near the vaginal orifice, when they were removed, the labor being completed by manual means. The placenta was easily delivered in half an hour, followed by quite a profuse gush of blood. This latter was controlled by persistent kneading (Credé) with ergot, at the same time clearing away all clots from os with finger. The child, though born alive, survived only three hours. Its age; as near as I could calculate, was about 6½ months. The patient then made an uninterrupted recovery, and no doubt will venture on her perilous journey again in due time.

As complete asepsis was observed as possible in all details pertaining to the case, and at no time did her temperature exceed 101°.

Correspondence.

Note in Reference to Raising the Epiglottis in Anæsthetic Apnœa, Asphyxia, etc.

Editor Virginia Medical Monthly,—Dear Sir—One rarely sees in English hospitals the chloroformist resort to seizure and traction upon the tongue in anæsthesic apnœa. The simple method of pressing the lower jaw forward is that usually adopted, and answers every purpose in the majority of cases. It is done without the least trouble or loss of time, and without attracting the attention of the operator or visitors. My attention has been called to this matter by recent articles in the *British Medical Journal*, on "Head and

Neck Extension" to accomplish the same purpose—*i. e.*, to draw the epiglottis forward. (See *Brit. Med. Jour.*, Feb. 9 and 16, 1889.) Having frequently tried the method alluded to above, and finding it eminently satisfactory, I can confidently commend the same to your readers.

I. S. STONE, M. D.

Lincoln, Va., March 8, 1889.

Original Translations.

From the German. By M. D. HOGE, JR., M. D., Richmond, Va.

Statistics of Syphilis in Females.

Out of his private practice, Fournier (*Rundschau*, 13. H. 1889) has furnished for the *Annal. de Derm. et de Syphil.*, the following information: Of the 887 women treated for syphilis, 842 acquired it by cohabitation. Of this number, 336 were prostitutes, 220 were married and the rest unknown. One-hundred and sixty-four married women were infected by their husbands; and he argues that this fact, —that about twenty per cent. of the total number were married—calls for energetic prophylactic measures.

Turpentine as Hæmostatic.

In cases of uncontrollable epistaxis in which other means proved of no benefit, Dr. Ernye (*Rundschau*, 13. H. 1889) acting on Billroth's suggestion, used cotton tampons soaked in turpentine and introduced in the nose with surprising results. In one patient who had been bleeding at the nose for eight days, and after all external and internal means had been tried with no benefit, and the patient appeared to be dying from anæmia, Dr. Ernye applied turpentine on cotton tampons, and stopped the hæmorrhage instantly and completely. It is better to dilute the turpentine somewhat on account of its irritating effect on the mucous menbrane.

For Sick Headache.

The following mixture, to be taken as one dose, is recommended by Dujardin-Beaumetz (*Rundschau*, 13. H. 1889).

℞. Ethyl-oxy-cafeini.....
Sodii salycili.....
Cocaini hydrochlor..... āā gr. ss.
Aquæ.....fl. ℥ij
Syrup simpl .....fl. ℥ss.—M.

Sudden Death in Infants due to Enlarged Thymus Gland.

An interesting paper on this subject has been recently read before the Medical Society in Stratsund by Dr. P. Gravitz (*Rundschau*, 13. H. 1889), at which time he reported two cases. The first was that of a child eight months old, whose parents were oblized to spend the night away from home, and left their child in charge of a nurse. On their return home the next day they found it dead, and accused the nurse of having covered it by a feather bed so that it was smothered. Proceedings were instituted against the accused. A post-mortem was held by the author and Prof. Leinan. The latter was of the opinion that the child did die of suffocation. But on further examination, it was proved that the child was not covered up too much, and that the pressure of a very enlarged thymus gland was the cause of death, and the judge discharged the prisoner as not guilty.

Some time after, Gravitz had another similar case, but in this one the proofs were much stronger. A father who was showing his little six months' old child to some friends, noticed that it suddenly became very black in the face, with great difficulty in breathing, and died in a few minutes. Among the friends present was a hospital-steward, who used every means to resuscitate it, but his efforts were of no avail. The attending physician wrote a certificate giving the cause of death "convulsions." The parents, not satisfied with this, asked for a post-mortem, which Gravity conducted, and he found a thymus gland of unusual size. It reached from both sides of the thyroid gland, to below the heart, and was three and one-quarter inches long, two and one-half inches wide, covering the heart, and an inch and one-half thick. Its shape was irregular with several processes; in consistence rather hard. The epiglottis showed an exquisite lateral compression. Diagnosis:—Death from hyperplasia of the thymus gland.

After Treatment of Operation of Empyæmia.

The question of the after treatment of empyæmia is one of great practical interest, and the experience of Prof. Hoelsti (*Rundschau*, 5. H. 1889) is well worth attention. Of the 27 cases operated on, only one died and that from pulmonal and cardiac complications; three left the hospital with fistula, and the rest were cured. In all the cases operated on the pleural cavity was not washed out once. The main point to emphasize in every case was free drainage, which was best accomplished by the resection of a rib, pre-

ferably the sixth, and to avoid the mistake of removing the drainage tubes too soon.

Sulfonal-Rash.

A woman suffering from metritis and dysmenorrhœa was treated by Dr. Engelmann (*Rundschau*, 15. H. 1889) for insomnia. He prescribed chloral hydrate for a time, and then used sulfonal, giving thirty grains at a dose; this produced no sleep, but towards morning the patient was troubled with great itching, on the outer side of both breasts, showing a diffused scarlet exanthem, which extended very symmetrically until the third day, when it began to recede.

Alcohol Bath for Erysipelas.

Reasoning from the fact that a ninety per cent. spiritus vini is a sure germicide for the coccus of erysipelas, Behrend (*Rundschau*, 5. H. 1889), who was in charge of a large penal hospital, in which erysipelas occurred frequently, determined to try it as an application. He was fortunate in being able to begin the treatment of all the cases in their incipiency before grave symptoms arose. All the patients were required to bathe the affected parts and extending one-half inch beyond the border into the healthy skin, three times daily, with a 90 per cent. alcohol. The result was a complete arrest of the disease, without exception, and in three to five days a cure. This method gives very quick results, and is not painful as that, recommended by Hueter, of carbolic acid injection; or Ebstein's modification, namely, the external application of a 5 per cent. carbolic acid ointment; although the latter claims to have had first-rate results, and no carbolic acid intoxication from absorption, even when the acid was detected in the urine. Ebstein has treated by his method twenty-seven cases, involving the skin of the head, face, neck and lower extremities.

Foreign Bodies Swallowed Removed by Potatoes.

The old practice of thieves, who, having swallowed valuables for concealment, and afterwards eat largely of Irish potatoes, has recently been put into practice successfully by Salzer (*Rundschau*, 5. H. 1889). A child was brought to him who had swallowed a three-grain weight. The consulting physician was in favor of immediate gastrotomy, but Salzer bethought himself of this old-time practice, and fed the child heavily on potatoes. On the fifth day he passed the metal weight along with an enormous quantity of fæces.

Preliminary Examination of Urine.

One of the simplest methods we have seen for making a hasty and approximate test of urine is that proposed by

Hager (*Rundschau*, 5. H. 1889). On a strip of white filtrating paper, about an inch broad and six inches long, a drop of the urine to be tested is put. This part of the paper is then heated slowly and carefully over a small gas or alcohol lamp, care being taken that the paper is dried without becoming browned by the flame. If the urine contains no sugar, the spot dries without a trace, or at most, a faint yellow; if sugar be present, the spot dries with a yellowish brown to deep brown, depending on the amount of sugar present. If the test is for albumen, and it be present, the color is yellow, merging perhaps into yellowish red.

Tinctura Castorei Spir. for Morphine Habit.

A peasant woman who, during a case of exudative peritonitis, became addicted to morphine, taking daily sixteen grains, was denied the drug. Cramer (*Rundschau*, 5. H. 1889) sent her tinctura castorei spir., with the assurance that it would answer as well as morphine. What was his surprise to hear from the patient, that it filled all the indications and she was soon relieved of the fearful morphine habit. This suggestion is well worthy of further trial.

Sea-Sickness.

Rebatel (*Rundschau*, 5, H. 1889) recommeds the following:

℞. Atropiæ sulph.....gr. ss.
Aquæ destell.....3ij

M.—S.—Inject twenty drops every eight hours.

From the French. By R. M. SLAUGHTER, M. D., Theological Seminary, Va.

Suspension in the Treatment of Locomotor Ataxy and other Diseases of the Nervous System.

The following is an abstract from the lecture of Prof. Charcot at La Salpêtrière on January 15th, 1889 (reported in *Le Progrès Médical*, January 19), by Dr. Gilles de la Tourette:

M. Charcot has experimented during the past few months with this new method of treatment in tabes with very satisfactory results. This treatment originated with Dr. Motchonkowsky, of Odessa, who made it known in a pamphlet in 1883, which, until lately, has passed unnoticed. In 1888, M. Raymond, during a scientific mission to Russia, had occasion to observe the good results obtained by Dr. Motchonkowsky. The treatment was put into operation for Prof.

Charcot by Dr. Gilles de la Tourette, who has collected the facts and observations.

In his brochure, Dr. Motchonkowsky recorded that he had treated, with considerable benefit, twelve cases of tabes, and at the same time the treatment had re-established the sexual functions of other patients, which were lost through other nervous troubles than tabes.

The treatment consists of a series of suspensions of the entire body, of progessive duration, lasting from one-half to three minutes—four minutes being a maximum. The apparatus used for the suspension is similar to that used by Sayre in the application of his jacket. The first suspension should last half a minute at each *séance*. The suspension should be practiced every other day, this having given better results than a daily suspension. As a technical detail, it should be added that it is necessary to raise the arms of the patient every fifteen or twenty seconds, so that the traction exercised upon the vertebral column may be the more effective.

Of fourteen patients with tabes who were regularly treated by the above described method, all have shown improvement to a greater or lesser degree. Eight have shown a remarkable degree of improvement. The patients were all subjects of confirmed tabes.

From the beginning of the treatment, there was nearly always improvement in the power of movement, and of the incoordination when it existed. The patients remarked that, after suspension, locomotion was easier and more assured. This improvement lasted, at first, for two or three hours, and after eight or ten suspensions, it became continuous. The patients could stand up much more easily, walk without aid, and take quite long walks.

After twenty to thirty suspensions, Romberg's sign (the unsteadiness of ataxics in darkness) disappeared. Next in order came improvement in the vesical troubles, so common in ataxics. Micturition became regular and easier. Incontinence disappeared, or was greatly lessened, and in some cases the vesical functions became normal. The lightning-like pains seemed to be equally benefited by the treatment, for they came on far less frequently, lessened considerably, or disappeared entirely. Finally, under the influence of the suspensions the complete impotency, which is so often manifested in ataxics, gave place to sexual desire and erections

It may be noted, incidentally, that the experiments of

Onanoff upon healthy individuals prove that suspensions increase virility.

As a corollary of the phenomena mentioned, the sensation of numbness of the feet lessened or disappeared, and in cases of two patients the patches of plantar anæsthesia lessened sensibly. The general condition improved, sleep became better, and this is not to be entirely attributed to the disappearance of the pains.

All the patients treated have been more or less benefited, the improvement appearing to be in proportion to the duration of the treatment. To this there is one exception—a patient of 32 years with an ataxia of hereditary origin, and in whom the disease had nearly reached its apogee. For a month this patient improved greatly, and then had a relapse, characterized by a crisis of lightning-like pains and a drooping or falling of the left upper eye-lid. After this, as before, the treatment brought about an improvement. But in none of the patients, at the end of three months, have the patella reflexes re-appeared, and the pupillary signs have continued as they were.

Suspension has also been tried in other nervous diseases than tabes. In two *neurasthenic and impotent patients* the sexual functions were restored by this treatment.

On the other hand, a patient with *sclerosis en plaques* (multiple sclerosis of the brain and cord), after two suspensions, was seized with a spasmodic paraplegia, which disappeared after three days.

While it is not to be denied that it is yet necessary to experiment further in order that the value of the treatment by suspension in tabes may be definitely fixed, it is certain that the results obtained in the last three months are most encouraging, and this, in a disease which heretofore has seemed to defy every therapeutic measure. In all cases the treatment may be instituted with confidence, for, in the experience of M. Charcot, it has proved entirely harmless when properly carried out.

[*Note by Editor.*—This "Suspension treatment" of tabes, ataxia, etc., appears to be "the sensation" of the day. According to *Medical News*, March 23d, this treatment has been actively carried out in the Philadelphia Infirmary for Nervous Diseases for the past five weeks—14 cases being under treatment. The suspensions lasted from two to three minutes, and, as a rule, were well borne. The pressure must be equable—not more in the neck than in the armpits. After suspensions are over, the patients are not released for

a minute or so, as they are unsteady at first when let down. "There has not yet been, in any case, striking improvement," although it is too early to speak of the results obtained. The only unpleasant effect was in a man who fainted during suspension; but he recovered in a few minutes after being let down.

The *British Medical Journal*, March 9th, states that "the results obtained by Profs. Eulenburg and Mendel at the Berlin Clinic for Nervous Diseases, in the cases of 20 ataxics, fully confirm, so far as can be judged from the comparatively recent introduction of the new treatment, the encouraging outlook sketched out in Prof. Charcot's communications. The improvement observed bears chiefly upon the walking power, the equilibration, the lightning pains, and, in a few cases, the bladder troubles. Moreover, no bad symptom whatever has been observed, even in the case of the female patients who are undergoing the regular course of suspensions."]

Gaiacol—Substitute for Creosote.

In 1887, Dr. Sahli, in an article in No. 20 of the *Correpondenz-Blatt für Schweizer Aerzte*, first proposed the substitution of this substance for creosote, into the composition of which it enters in the proportion of 60 to 90 parts in the 100. Creosote is not in fact a definite chemical compound, but a mixture of several substances belonging to the phenol group.

In 1888, Fraentzel (*Therapeutische Monatschelfte*, No. 4), acting on a personal communication from Prof. Penzoldt, tried gaïacol in more than twelve cases of tuberculosis, and obtained the same results as with creosote.

Gaïacol is prepared by Fischer's process, which is the distillation of the beech-wood. The products of distillation are collected at a temperature of 200°(C), treated with several re-agents, and submitted several times to fractional distillation.

Gaïacol, in its pure state, is a colorless liquid, possessing an agreeable aromatic smell, and in this it has a great advantage over creosote. It is very important (from the fact that its therapeutic effects depend upon it) that the article should be well prepared and pure. One of Fischer's tests is as follows: If 30 minims of gaïacol be shaken up with a drachm of petroleum benzine at a temperature of 20°(C), the gaïacol, if pure, separates again rapidly and entirely. If the substance tested is not perfectly pure gaïacol, but is, say, that of commerce (which, according to Fischer,

contains sometimes only 35 per cent. of gaïacol), there will result a clear solution, and no separation.

The action of gaïacol is very much like that of creosote. Sahli says that it quiets the cough, especially in the beginning of phthisis. When the expectoration is difficult and the secretions abundant, gaïacol liquefies and diminishes it. It is suitable for all cases of slow phthisis requiring long continued treatment. It is well borne, and the appetite improves, as does the general condition. It should be continued for weeks and months. The dose is 15 to 20 centigrammes (2½ to 3 grains) daily, though it may be given in much larger doses. In Paris it is sold in capsules with oil of beech-nut.—*Le Progrès Med.*, Feb. 16, 1889.

Eschscholtzia Californica—A Succedaneum of Opium.

Adrian and Bardet have been studying the composition of this plant, which belongs to the family of the papaveracea. It is considered in America to be a succedaneum of opium, and a useful sedative, particularly for children. Zacchariani has verified the physiological properties and narcotic properties of the drug. Bardet and Adrian have extracted from the plant three substances—a glucoside, an organic base, and a small quantity of morphine. The presence of morphine, perfectly demonstrated by tests, is interesting, for it has not been found, so far, in any other genus than the genus papaver.—*Le Practitien*, Feb. 25, 1889.

A Substitute for Cod-Liver Oil.

Larmande recommends the following as a good substitute for cod-liver oil, when a substitute is required from any cause:

℞. Pure glycerine..... ℥viij
Syrup of raspberries..... ℥iss
Tinct. of iodine..... min. xxx
Iodide of potassium..... grs. v

M. S.—Tablespoonful a quarter of an hour before eating.
—*L'Union Med. du Canada*, Feb., 1889.

Facial Paralysis of New-Born Children.

There exists at least three forms of peripheric facial paralyses of the new-born:

1. Paralysis caused by the application of the forceps.
2. Paralysis caused by slow labor, narrow pelvis, or intrapelvic tumors.
3. Paralysis which is generally accompanied by a diminution of the hearing, and which is truly congenital.

The prognosis, as regards complete recovery in the first

two forms is good, while the third is incurable, and remains so throughout life. The functional troubles which accompany it are not great, for the subject learns to accustom himself to it, having never known normal function as to the paralyzed side. But when the practitioner observes in the new-born infant a peripheric facial paralysis, which has not been caused by the forceps, it will be better in general to reserve his prognosis; for if the paralysis has resulted from pressure, it will generally disappear; but if it is truly congenital, it will last during life. (*Rev. de Med.* and *Rev. de Therap.*)—*Le Practitien*, Jan. 14, 1889.

An Ideal Antiseptic.

The following is recommended by Rotter (Congress of German Naturalists) as an ideal antiseptic solution which will not injure instruments. A weaker solution may be made by using smaller quantities of corrosive sublimate and carbolic acid:

℞. Bichloride of mercury..... 5. parts (by weight)
Cloride of sodium..... 25. "
Carbolic acid. ..... 200. "
Chloride of zinc } ...āā 500. "
Sulpho. carbolate of zinc }
Boric acid..... 300. "
Salicylic acid ..... 60. "
Thymol } ..... āā 10. "
Citric acid }
Water . ..... 100,000. "

—*Le Progrès Med.*, Jan. 26, 1889.

Biniodide of Mercury Cotton (*Pharm. Zeiting*).

℞. Biniodide of mercury (red)..... 8 parts
Iodide of potassium..... 3 "
Glycerine ..... 120 "
Distilled water..... q. s. ad 2,400 "—Mix.

Saturate the cotton with the solution and dry.

—*Le Progrès Med.*, Jan 26, 1889.

Alimentary Regimen for Subjects of Bright's Disease.

I. *Classic Regimen.*—To be avoided, dampness and sudden changes of temperature. Articles of diet to be avoided, spiced and irritating foods, eggs. Follow the milk regimen. Prohibit all alcholic drinks, even beer.

II. *Regimen of Senator.*—Allow white meats and pork. Prohibit red meats. Allow the feculent and herbaceous aliments, fruits, fats, and milk. Senator allows as a drink wine and water.

III. *Regimen of Semmola.*—Restrictions as above. As a drink; the solution made by the following formula, to be taken in twenty-four hours:

℞. Potassium iodide.....grs. xv
Sodium phosphate.....grs. xxx
Sodium chloride.....grs. lxxv to ℥iss
Water.....Oij M.

IV. *Regimen of Ramberger.*—Milk regimen followed by ferruginous preparations and tonics. (*Lyon Med.*)—*L'Union Med du Canada*, Jan., 1889.

Proceedings of Societies, Boards, etc.

RICHMOND MEDICAL AND SURGICAL SOCIETY.

[Extracts from the Minutes of February 14th, 28th, and March 14th, 1889.]

Delirium Following Simple Fracture of the Leg.

Dr. Hugh M. Taylor reported a unique case of nervous disturbance following a simple fracture of the leg. Both bones were broken, but the fracture was not compound or comminuted; nor was the traumatism or shock at all great. The fragments were easily put in good position, and a pillow and side splints held them so; and for the first twelve hours, with the aid of quarter-grain of morphine, the man rested very comfortably. In about twelve hours more, as he was suffering some pain, another quarter of a grain of morphine was given. Soon after taking the morphia, he began to sleep most of the time, but would wake up at intervals, when he seemed perfectly rational, and only showed a disinclination to remain awake, to talk, or be in any way disturbed. In twelve hours more he became very irritable, restless, sleepless, and began incoherent talking. If spoken to sharply, he would collect himself, reply in monosylables, but in an angry, fretted voice. No amount of scolding or coaxing served to keep him still. He tumbled all over the bed and his broken leg had to be shifted every few minutes. Bromidia, bromides and sulfonal had very little effect upon him. Sulfonal, in twenty grain doses, probably had the most decided quieting effect—at times secured sleep for several hours. From each of these periods of rest it was hoped he would wake up rational, but in spite of this respite to his nervous system, his condition continued for days un-

changed. His temperature was at no time more than 101°F., and usually it was not higher than 100°. His pulse, however, remained as rapid as 120 or 130; but, beyond its rapidity, there was nothing unusual about it. No urinary examination could be made, as he passed his water in bed involuntarily.

There could have been no injury to any other part of the body, as the piece of iron was not large and did not knock him down when it struck his leg. The trouble about his bladder seemed to be a want of consciousness of desire to pass his water; or rather an inability to express his wants to others. Before the trouble with his nervous system began, his bladder had performed its function perfectly well, and at intervals there was satisfactory action of his bowels.

For ten days the patient remained in this curious condition, and in spite of careful study of his case, it was impossible to comprehend the cause of the singular phenomenon. The possibility of fatty or other emboli were considered, the many phases of hysterical manifestations were likewise borne in mind, and also the effect of traumatism upon an impressible nervous system, such as the patient was known to possess.

Viewed in any of these lights, Dr. Taylor thought it an interesting case. He had met with no similar condition. It was a new field for observation, and his interest was deepened, as the friends of the patient attributed his condition to the effects of the morphia, although no such idiosyncrasy was known to exist in the patient. Dr. Taylor had seen temporary mental excitement and aberration result from morphia, but usually in a few hours, at most, it had passed off. The existence of such a condition as he had described, for ten days, excluded any theory in this case that connected the condition with the taking of morphia.

Irritable Bladder—Sexual Disturbances, etc.

Dr. Wm. S. Gordon opened the subject for discussion, remarking that the physician is sometimes consulted by patients who complain of frequent micturition, associated, it may be, with a burning or stinging sensation at the end of the penis. The general health may not appear to be affected, but the conditions of the urinary organs is such as to cause the patient, and frequently the doctor, a good deal of annoyance. Reference is made here not so much to those in advanced life, where a morbid state of the bladder or prostate is the cause of the trouble, as to cases in which this state of affairs cannot be ascertained. As a rule, little urine

is passed at a time, and this may be either pale, clear, light or dark amber, or reddish in color. The true cause should be sought for.

The speaker was convinced, from analyses which he had made, that the following causes, often found in the urine itself, would account for the complaint: Concentration, making the urine an irritant; alkalinity, or neutrality, with precipitation of phosphate; hyper-acidity; excess of urea, or uric acid (especially hedge-hog crystals)—even when the specific gravity of the urine was normal; oxalate of lime, bile, and other products, abnormal, or else normal, yet in excess. An important thing to be done in such cases is to analyze the urine thoroughly, which is the only scientific way, in connection with other means, of arriving at a correct diagnosis. Dr. Lionel Beale, of London, says that a naturally small bladder may be the cause; but in cases of this kind, the probability is that the amount of urine excreted is in proportion to the size of the body, and would not be passed oftener than from others, were the functions of the patient in perfect order. Yet, as Dr. Beale adds, nervous excitability and neurasthenia enter themselves as factors; and these conditions of the nervous system are more apt to be present in the nervous temperament. The speaker had prescribed the hypophosphites in a case of irritable bladder associated with neurasthenia, the patient remarking that he did nor urinate so frequently afterwards. At times this gentleman had derived benefit from the bi-carbonate of potash, used for hyper-acidity of the urine, to which his physician had attributed his irritable bladder. Neurasthenia was, in this case, the probable cause—whether alone or in connection with others—of the hyper-acidity. In a case of enlarged prostate, however, bi-carbonate of potash had been used, only to make the patient remark that the remedy had kept him urinating almost the whole night. The moral is evident.

Passing over the numerous cases that were enlarged prostate and such as, either in the male or female, were due to reflex or mechanical agencies, there was another probable cause in the male which, in Dr. Gordon's opinion, had not received due attention, namely, reflex irritation from the vesiculæ seminales. The subject of inflammation of these vesicles had been exciting discussion; but continued repletion of them in men who were continent, or rarely had sexual connection or seminal emissions, might reasonably be expected to cause irritation of the neck of

the bladder as well as general irritation of the nervous system. On the other hand, disease in the region named, due to excessive sexual indulgence, or other causes, might be the first factor in making the whole bladder, or a portion of it, hyperæsthetic.

To digress a little, it was not improbable that there may be a reflex dyspepsia in the male as well as in the female, the disorder in the latter sex having been well described by Dr. Fothergill as "ovarian dyspepsia." If this be true, irritation from the testicle, or vesicles, in the male, would weaken the digestive process, producing imperfect assimilation, unhealthy urine, and an irritable bladder. In a case of dyspepsia with decided acidity of the urine, excess of urea, and frequent sexual excitement, the speaker believed that rigid continence was the cause; for the patient remarked, after having taken bromide of sodium and the hypophosphites for a while, that he had never known before how nervous he was. In other cases gastric irritability is undoubtedly associated with seminal emissions.

Returning to the main subject, it was a noticeable fact that in certain animals, about to have sexual intercourse, the urine would be passed once or oftener, this being due, of course, to nervous excitement; while fright, and possibly other emotions, in man, would frequently cause immediate micturition. A sudden interference with the functions of the skin would produce the same effect—as in a snap of cool weather during an otherwise warm spell.

The nature and symptoms of "irritable bladder" (the term being the best we have for the complaint under consideration) vary according to their cause and to peculiarities of temperament. In many cases the treatment will be successful if a diagnosis, based upon both primary and secondary causes, has been made, and if appropriate means of relief be adopted. In cases where enlarged prostate, growths in the urinary tract, or organic lesions of any kind exist, the prognosis is, of course, much less hopeful.

Hearing Restored after Deafness of Twenty-five Years Standing, by a Surgical Operation.

The President, Dr. Joseph A. White, reported the following case:—

The patient was a man who had been wounded at the battle of Chancellorsville, and in consequence lost the hearing of the left ear. The bullet struck him in the cheek in front of the ear, passed into the bone and out through the left mastoid process, crushing the bony parts of the external

meatus auditorius in its passage. The union of the crushed fragments resulted in a bony occlusion of the meatus.

In December, 1888, he applied to Dr. White to see if there was any chance of restoring the defective ear. On examination, it was found that he was perfectly deaf to all extraneous sounds, such as voice, watch, etc., but he could hear the tuning fork when placed at the apex of the head or on the teeth. As the nerve perception by bone conduction was good, Dr. White determined to perform an operation in an endeavor to restore the external meatus. The bony callous was attacked with mallet and chisel, and a shallow opening in the line of the meatus was made by chipping away the bone. For fear of wounding the membrana tympani, the chisel was then laid aside, and the operation was completed with the aid of the dental engine by dental burrs and drills. When the opening was sufficiently large and deep to obtain a view of the drumhead, it was found that the deepest portion of the osseous meatus, about one-eighth of an inch in front of the drumhead, had not been filled up, and a small space existed between the inner wall of the bony obstruction and the drumhead. The artificial meatus was made as large or larger than the normal passage way, and the drumhead was discovered to be almost normal in appearance.

There was considerable irritation about the parts for some days which soon subsided. *Hearing* gradually improved, until ten days after the operation, when a loud whisper was distinctly audible to the patient. He then returned home, to come back in a few weeks, when any further developments in the case will be reported.

This case is one of special interest in more than one respect. Whilst the operation was an uncommon one, still it has been often performed for exostosis and hyper-ostosis of the external meatus, and therefore, Dr. White did not lay much stress on that point. But he called attention to the apparently brilliant and rapid result in the restoration of hearing, after a deafness lasting twenty-five years; and especially to the fact, that the membrana tympani should have remained nearly normal in appearance and resumed its normal functions after being sealed up in a closed cavity for such a long period of time. With the pressure of air only on the inner side of the membrane, it should, theoretically, have been pressed outward, just as it is driven inward when a normal external meatus exists and the air in the drum cavity becomes rarified by closure of the Eusta-

chian tube. We know that with such a closure of the tube, pressure of the air from without, continued for a long time, brings about radical changes in the drum-head and drum, resulting in permanently impaired motion of the membrane, and it seemed as if such a result should have occurred in this case in the inverse order, by unopposed pressure from within. It seems, however, that the air passed through the drum-head into the small space between it and the bony wall, and prevented such a result. The case, therefore, seems to bear out the assumption of some authors that there is a tiny normal opening in the "Rivinian segment," known as the "Rivinian foramen," although Dr. White stated he had never seen any dissection of the ear with such an opening, nor had he heretofore met any case in practice that bore out this assumption. It is, however, possible that in this case there may have been a slight arrest of development, leaving a small *abnormal* opening, and not as some assume, a "*normal foramen.*"

Acute Synovitis of Knee Joint from Punctured Wound, Treated by Incision and Drainage—Recovery.

Dr. Hugh M. Taylor reported the case of a strong, robust boy, æt. about 15 years. The wound was situated some distance above the patella, was made by the point of a hatchet, was very slight in extent, and was considered of such a trifling character that medical advice was not at first sought. For one week after the injury the boy continued to walk a long distance to school, and to take violent exercise, such as is the habit of boys of his type. He afterwards admitted that there had been all the time some little soreness, but not enough to make him mention it. Very suddenly, however, whilst in school, his knee began to pain him, and by the time he had walked home, his suffering was intense.

When seen by Dr. Taylor, a few hours later, he found him with marked febrile disturbance, and with all the evidences of acute synovitis. Already the joint was tense with fluid, very painful, with increased pain on deep pressure. The inflammatory action clearly began in and was limited to the synovial membrane, and the focus of its action seemed below the patella, and not above, near the site of the wound, which was now only marked by the presence of a very insignificant-looking little scar.

The treatment adopted was to elevate the limb on a pillow, cover the joint with an evaporating lotion, and the administration of commanding doses of quinine and morphine. For the first forty-eight hours, the relief afforded

by this practice encouraged the hope that the progress of inflammation was checked. Such a hope was, however, very soon dispelled; intra-articular pressure very perceptibly increased, and the patient's suffering was excruciating. The quantity of morphine had to be increased until from one and a half to two grains in twenty-four hours was necessary, and even that amount in quarter-of-grain doses, every three hours, secured very imperfect and short periods of rest; and where bromidia, sulfonal, etc., were tried as substitutes, they proved entirely inadequate. The poor sufferer had screamed until he was so hoarse he could not raise his voice above a whisper. During this time leeches had been several times applied over the knee joint, and the evaporating lotions changed for hot fomentations. The high grade of inflammatory action had now been going on for a week or more, and as the symptoms all pointed to suppuration within the joint, operative interference seemed called for.

Two plans of treatment suggested themselves—aspiration and incision and drainage, the latter with or without drainage tubes, or some substitute for them. Both methods had the same end in view—removal of the effusion, and thereby the pressure, pain, further inflammatory action, and possibly septic infection. The presumption was so strong that suppuration had already begun, it was thought best to open and counter open the joint, and by drainage tubes to provide for permanent drainage. To accomplish this end, an incision was made along the lower part of the inner border of the patella, and a perforated drainage tube was passed through the joint and out towards its upper and outer side, near the site of the hatchet wound. When the joint was opened, quite a large quantity—fully a pint or more—of fibro-serous fluid escaped. There was no pus; but when pressure was made over the patella, there escaped through the incision two chunks of substance about as large as the end of a man's thumb. They were of a dark amber color, and about the consistency of well-hardened jelly. The joint was flushed out through the tube with a bichloride solution (1 to 3000), antiseptically dressed, and made immovable with a felt splint on the posterior aspect of the leg.

The severity of the acute symptoms were not perceptibly lessened for five or six days. Frequent and large doses of morphia, or some substitute, were still necessary to secure sleep or quiet, and every attempt to lessen their quantity was followed by screaming days and nights. The dressing

was not changed for four or five days. It was found to be stained only by the colorless synovial fluid, which seemed to have escaped freely through and by the side of the tube. At the second dressing, about one week from the time the joint was opened, there was still no suppuration, and as the amount of serum escaping was very limited, it was thought best to remove the tube. No escape of fluid followed its withdrawal; no subsequent drainage from its track resulted, and in a few days it closed. Still the pain continued to be very troublesome; for days it was by no means certain that destructive inflammation had been cut short. Finally, however, the pain gradually decreased, inflammation subsided, and the case went on in a very satisfactory way to a speedy recovery.

The term recovery was used in its fullest meaning, for not only was there subsidence of pain, etc., but a perfect restoration of the functions of the joint. It was surprising how fast the improvement went on after it once fairly set in, and was not at all like the slow repair after inflammation of this joint, involving the cartilage ligaments, etc.

Dr. Taylor thought this case illustrated the serious consequences which may follow a seemingly trivial injury to the knee joint, the serious constitutional disturbance made by acute inflammation of this extensive serous surface, the tolerance under such conditions to the influence of morphia, and a treatment which certainly surprised him by staying the progress of what he had every reason to suppose would end in suppurative arthritis, and possibly destruction of the joint.

Is it likely that any less radical measures would have done as well? Possibly aspiration would have lessened the intra-articular pressure, but aspiration alone could not have removed the fibro-gelatinous masses mentioned, and would, he thought, be insufficient in a case of acute suppurative arthritis such as he supposed he was dealing with. To what extent the fibrous masses should be considered as factors in the case, he thought must remain an open question, but being inflammatory products susceptible of further degeneration, he considered their removal a point gained. He was by no means inclined to undervalue aspiration; he had seen it do too much good, and in just such cases as the one he reported turned out to be did he see its greatest field of usefulness.

Every day or two he saw on the street a young lady who owes the only leg she has to the repeated resort to aspiration. When a girl she had strumous arthritis of both knee

joints. In one of the joints, and in the heads of tibia and femur, the destruction of tissue and deformity was so great that amputation was necessary. The other joint was full of fluid, and when emptied with the aspirator it was found to be sero-purulent in character, such as is found in strumous patients. He could not recall how often that joint was aspirated; certainly five or six times; and yet that girl recovered, and now has perfect motion in that joint, and with the aid of crutches, that limb does double duty.

Dr. Taylor thought if he had again to treat the case of the boy, he would first resort to aspiration, and if that proved not sufficient, he would subsequently open the joint by incision, relieve the tension, and provide for drainage. The success of the treatment in this case, he thought, endorsed the practice of not waiting for suppuration to justify us in resorting to radical measures for relief; and while as yet the propriety of opening a joint before suppuration results, with the object of preventing it, must be admitted a mooted point with antiseptic practitioners, he was very much of the opinion that the end would justify the means.

While the wound of injury, in the first instance, was a punctured wound, it had become, when seen, hermetrically closed, and possibly was so from the first. The occurrence of such acute inflammatory action bears upon the practice of hermetrically sealing such wounds, and certainly sustains the conclusion that only when they have been rendered aseptic should they be hermetrically sealed; and he was inclined to look with less concern upon an open wound of a joint which is aseptic than upon one that is closed under similar conditions.

He thought we would not wonder at the severity of the inflammation and the gravity of the case if we recall the fact that it is estimated (Dr. Edward Andrews—*International Encyclopedia*, Vol. III, p. 350) that the synovial membrane of the knee-joint amounts to about one hundred square inches; and if we include the bursa under the quadriceps femoris, the extent of the synovial surface is not far from two hundred square inches; and we should understand better the difficulty encountered in draining this joint if we recall the fact that this extensive tissue forms always two, and sometimes three, distinct cavities, or pouches, which, while not communicating with each other freely enough to permit drainage of all through one, yet the communication is free enough to allow septic infection of all from one, and certainly the extension of inflammation by continuity of tissue from one to the other.

Analyses, Selections, etc.

Treatment of Mammary Abscesses—Hydrogen Peroxide and Balsam of Peru.

Dr. Robert T. Morris, of New York, N. Y., says (*N. Y. Med. Jour.*, March 22d), after the pus has been evacuated, when the best antiseptics—bichloride of mercury and carbolic acid solutions—might be dangerous applications because of absorption of too large doses, if we substitute peroxide of oxygen and balsam of Peru, the mammary abscess cavity will quickly fill with healthy granulations, and the dangers of wound infection and of long-continued suppuration will be done away with. After making a very free opening into an abscess cavity of large size, inject once daily a few drachms of twelve or fifteen-volume preparation of peroxide of hydrogen, and follow this injection with the introduction of a small quantity of the balsam of Peru. The peroxide is injected most easily by means of a hard rubber syringe and a small soft catheter, the latter being inserted into the deepest cavities and the injection then made through it. After waiting a few minutes, the masses of foam and the *débris* which are thrown out, are brushed away, and another injection made. This is repeated until the peroxide which is injected ceases to foam. The abscess cavity is then known to be chemically clean. Fluid remaining in the cavity is gently expressed, and balsam of Peru made to take its place. A very large drainage tube—or, what is better, a strip of gauze soaked in the balsam—should be introduced, and the whole breast enveloped in a large handful of bichloride gauze or cotton.

Automatic Ambulation—a Lapse of Consciousness—of Rare though Great Medico-Legal Interest.

Dr. F. Donaldson, Jr., of Baltimore, Md., now visiting Europe, reports the following remarkable case, which he saw at the Salpêtrière, in Paris, and which was under the care of M. Charcot, and described by him as a case of *l'automatisme ambulatoire.*

The patient, a man of perhaps 45, had been for nineteen years a bookkeeper in a merchant's counting-house, and had always enjoyed the utmost trust of his employer, who retired a year ago from his business, which went into other hands, the old bookkeeper remaining, however, in his confidential position. When brought into the clinic the pa-

tient, to all appearances, was perfectly healthy and sane, giving the history of his trouble clearly and in detail; explaining that he had from time to time suffered from lapse of consciousness; that during these periods he seemed perfectly rational to those about him, but to himself the time was a blank, and that these periods had lasted from a few hours to several days. The histories of these *absences* were as follows:

The first, it seems, came upon him in the year 1887, as he left the counting-house on some errand to the Rue de Villiere, Paris. He went his way, but lost all idea of time and place, and finally came to himself late in the evening in the Place de la Concorde, having wandered for fourteen hours. When he came to himself he found he had the same amount of money in his pocket as in the early morning. It was plain that he had taken nothing to eat or drink during these fourteen hours.

His second attack was during the spring of 1887, when he lost all consciousness for *forty-two* hours, and awoke in the Seine, having jumped from his coupé. He was fortunately rescued by a policeman. It seemed that after his unconscious peregrinations, he had taken a ticket upon the Railroad de Ceinture, and having passed the station where he evidently intended to get out, he had at the above time rushed from his coupé into the river. The shock of the cold water brought him again to consciousness.

A third time, in August, 1887, just as he was about to enter his own house, after business hours, he had a sudden attack of his malady, and only awoke from his living sleep after fifty-three hours, on the Pont d'Ansières, having been, in fact, aroused by a fisherman on the bridge, who, seeing him peering intently into the water, asked him, "What are you doing here so early?" He found himself covered with mud, and his shoes completely worn out; he had evidently been walking without interruption for nearly three days, and without food or drink.

After this last attack, recognizing that they were becoming not only more frequent, but of longer duration, he consulted Charcot. The Professor put him on a course of treatment, and also gave him a certificate stating that the bearer was subject to these attacks of "automatic ambulation," as he called them, and which the poor patient always carried in his pocket.

Under Charcot's handling the attacks disappeared, and all treatment was stopped. In February of this year, how

ever, as he left one morning his place of business to make a deposit, with some 700 francs on his person, he again lost all consciousness, to awake, *eight* days later, to find himself on a bridge in a strange city, which turned out to be Brest. Upon this occasion it seems that the loud music from a military band, in passing close to him, had called him to consciousness. Fearing himself, the poor man approached a gendarme, and told him briefly his story, adding that when he left home he had 700 francs, whereas at present he had but 500, and showing the certificate of Dr. Charcot. The stupid man did not, of course, understand, arrested the poor devil as a thief, or what not, and threw him into the lock-up, from which place he was finally rescued by a telegram from Professor Charcot. Since this last attack, he is again under regular treatment.

This peculiar and interesting form of disease Charcot has named "*l'automatisme ambulatoire*," a malady in which the sufferer comes and goes, and is apparently in perfect possession of all of his faculties, and yet to the man himself his every action is unknown.

The writer knows of no parallel case, though he has seen almost exactly the same symptoms caused by liquor. In this latter case, the man was absolutely sober, to all appearance, and perfectly rational, free from all and any of the usual effects of alcohol, and yet later he remembered nothing whatever that had passed. His friends recognized the extremely peculiar effect wine had upon him, and had always watched him most carefully.

Bloodless Treatment of Ingrowing Nail.

Dr. Patin recommends the following procedure for removal of ingrowing toe-nail, which he has employed with excellent results in all his cases. After thorough cleansing of the nail, a solution of gutta percha, 10 parts in 80 of chloroform, is applied with a brush to the interstices between the nail and the granulations. This is repeated several times on the first day, and subsequently at longer intervals. By exercise of care and patience, it will be found that the nail is gradually lifted from the underlying parts, and can then be removed, without pain, with the scissors. If a properly fitting shoe is worn, no recurrences need be apprehended. The solution applied in this manner exerts a double effect—the chloroform is anæsthetic, and the gutta percha acts mechanically, forcing its way between the granulations and the nail, and finally liberating it from its ab-

normal position.—*Gaz. des Hopiteaux.*—*Albany Med. Annals,* March, 1889.

Ammonium Chloride for Quick Relief from Drunkenness.

It is claimed (*Albany Med. Annals,* March, 1889) that half a teaspoonful of chloride of ammonium in a goblet of water will almost immediately restore the faculties and powers of locomotion to a man who is helplessly intoxicated. [We know this treatment is good. The remembrance of it may be of service to some subscribers who are getting ready to attend the sessions of their State Societies. We have several times had occasion to prescribe it on such occasions.—Ed.]

A Few Therapeutic Suggestions. (Chiefly from Dr. Mann.)

Puerperal Mania.—10 grs. calomel, followed by a saline; then camphor monobromide, grs. 4, in capsule.

Hysterical Mania.—A pill of belladonna, introduced into os uteri.

Nymphomania.—4 grs. camphor monobromide after a cathartic.

General Paralysis of the Insane—Sedative Pill.

℞. Zinci valerianat..... 5j.
Ext. belladonnæ..... gr. ij.

Misce et fiat pil., No. 30. Sig.—A pill every two hours.

Tearing off Clothing (Hyperesthesia of Body).—Camphor monobromide, 4 grs., ter. die.

In great motor excitement, fl. ext. conium, in half-dram doses, produces quiet, and muscular relaxation. In great depression and melancholy, warm baths and gradually increasing doses hydrochlorate of morphine will antagonize the morbid psychic state. Fluid extract of ergot is the antagonist to states of recurrent mania with lucid intervals; combine it with bromides and digitalis. In acute mania with much restlessness, envelope the whole person in a sheet wrung out of hot mustard water; put him to bed, and dry-cup the back of the neck. Iron, phosphorus, zinc and strychnine counteract cerebral degeneration. Give cannabis Indica in hallucination with excitement. Full feeding means tranquility.—*Occidental Med. Times,* March, 1889.

The New Antipyretic, "Pyrodin"—A Warning.

Under this name a new drug has been introduced, which has undoubted temperature-reducing properties of a high order, the practical application of which, however, is much

interfered with by its toxic action. Pyrodin contains as its active agent acetylphenylhydrazin ($C_6H_5N_2H_1C_9H_3O$) a crystalline powder very sparingly soluble in water. According to the clinical and experimental observations of Dr. Dreschfield, of Manchester, which have been confirmed by M. Lépine, of Lyons (as stated by the *British Medical Journal*), pyrodin acts in the same manner as, but more powerfully than antipyrin, antifebrin and phenacetin; and has also been used effectively in migraine and other forms of neuralgia, as in the lancinating pain occurring in locomotor ataxy (Lépine). Great caution, however, is required in its administration, as it is apt to produce jaundice, followed by anæmia, and even more serious symptoms due to hæmoglobinæmia. Milder toxic symptoms have occasionally followed the administration of acetanilid or antifebrin, and also of phenacetin; but, as phenylhadrazin is a much more powerful poison than anilin, so also, are the toxic properties of its acetyl compound much greater than those of acetanilid. In face of the poisonous qualities of pyrodin, we must warn the profession against the use of this drug generally. In exceptional cases, and where other antipyretics have failed, it may be useful, but great caution should be used. Small doses only should be given, and at sufficiently long intervals to enable one to watch any toxic effects, with the first appearances of which the drug should be stopped.

Treatment of Apoplexy Due to Hæmorrhage from Middle Cerebral Artery by Compressing the Carotid.

According to the *British Medical Journal*, March 2d, Mr. Walter G. Spencer and Prof. Victor Horsley recommend compressing the common carotid artery to arrest and to prevent the grave consequences of continuous hæmorrhage from the middle cerebral artery or its branches in cases of apoplexy—particularly of the ingravescent form. Of course, the method is not applicable either where so much blood is poured out that death is immediate, or where the hæmorrhage is so small that it ceases immediately. But the carotid artery compression treatment is reserved for those cases where the hæmorrhage is moderate at first, but continues for a time during which the severity of the symptoms gradually increases—these symptoms being spasms followed by paralysis, dilatation of the pupil on the same side as the hæmorrhage, and general signs of compression of the brain, followed by mechanical asphyxia and death. The middle cerebral is not a part of the circle of Willis,

but is a direct continuation of the carotid, ascending almost vertically to the fissure of Sylvius, and dividing into branches which supply the ganglia at the base of the brain and the internal capsule. The lenticulo-striate branch is the most direct continuation of the middle cerebral, and is so much more frequently the site of lesions causing apoplexy, that Charcot well calls it "the artery of cerebral hæmorrhage." The circle of Willis, on the contrary, lies almost horizontally, and its vessels are almost at right angles to the general axis; hence, the force of the blood is spent almost chiefly on the middle cerebral and its branches. Pathological observations, as to the site and frequency of intra-cranial hæmorrhages, agree with the anotomical facts. Experiments also showed that compression of the carotid, maintained for two minutes, stopped all hæmorrhage from the middle cerebral—this artery and the lenticulo-striate having been freely incised and made to bleed freely. The practical bearing of all this is to instruct all "first aid to the injured" persons to compress the carotid artery in cases of supposed apoplexy. Even if it should turn out to be a case of embolism or thrombosis, no harm could result from the instruction to compress the carotid artery, and thus stop circulation through the middle cerebral artery.

Large Hypertrophied Lingual Tonsil.

Dr. W. Peyre Porcher, of Charleston, S. C., reports (*Med. News*, March 16th) the case of Mrs. F., aged 40, who, on laryngoscopic examination, presented two masses of cellular tissue just over the line of the papillæ circumvallatæ, and extending from the base of the tongue, behind the epiglottis, almost to the top of the arch of the tongue—each tumor about the size of the last index finger phalanx, with a deep groove between the two. There was very slight inflammation or varicosity. They did not cause her pain, but an unpleasant sensation as of some obstruction, or a feeling of stiffness in her throat. He removed one tumor entire with Mackenzie's tonsillotome, and a portion of the other, making her "much more comfortable."

Thiol Preferable to Ichthyol.

The discoverer, Dr. Emil Jacobsen, obtained thiol by artificially sulphuretting unsaturated hydrocarbon, and charging the resultant crude oil with twelve per cent. of sulphur —the active therapeutic ingredient of ichthyol. If not superior to ichthyol in its curative values, it is fully equal

to it in this respect, and is far preferable to it, because of the absence of the very fishy odor which is so unpleasant in ichthyol, and its taste is more palatable. Besides, it is much cheaper. The clinical tests made of thiol by Dr. L. Reeps, in the clinics of Prof. Schweninger, of Berlin, show uniformly good results in eczema and like dermatoses. He says, in concluding a report of his experience with thiol in seven cases, that, applied externally in skin diseases, "it has positively the same effect as ichthyol," and assumes that it will prove equally useful in other skin diseases. It also seems to be harmless, as Dr. Reeps says he gave from 35 to 40 grains internally without discomfort or disturbance of the stomach, which would not be the case with ichthyol; but much less of a dose would usually be required, especially if it be desired to continue the use of thiol any length of time. We compile the above from March number of *Notes on New Remedies*, and would suggest to our subscribers to get some of our advertisers to supply them with supplies of their first importations.

Soluble Sulphates for Creosote Poisoning.

Dr. H. A. Hare, Demonstrator of Therapeutics, etc., of Philadelphia, Pa., states (*Univ. Med. Mag.*, April, 1889) that the importance of this announcement is the more appreciable just now, when beechwood creosote has come into common use in treating phthisis, and the drug may be taken in excess by accident, or for suicidal purposes. The value of the soluble sulphates as antidotes to carbolic acid, has been well-known since 1878. Beechwood creosote is not nearly so poisonous as carbolic acid. A drachm of the latter, taken internally, has caused death; and half an ounce of carbolic acid, in watery solution, applied externally, has also caused death. In analyzing a series of experiments, Dr. Hare notes that in every instance where magnesium sulphate was given after immense doses of creosote, the toxic symptoms were modified or entirely set aside. These toxic symptoms in the dogs were decreased in direct ratio with the increase in the quantities of magnesium sulphate given. The conclusion reached is, that in creosote poisoning, any of the soluble sulphates (as Epsom salts) should be given at once *in excess*.

Strophanthus for Uterine Hæmorrhages.

Dr. A. Williams, of Elk Ridge, Md., adds (*Maryland Med. Jour.*, March 30th) strophanthus to the small number of

drugs that control hæmorrhages from the uterus. It is especially useful in those who have become much debilitated by long-continued and profuse menstruation, or from other uterine hæmorrhages due to congestions of the womb. It is an essential adjuvant that the patient should go to bed. Strophanthus is a heart stimulant or tonic; and acts by removing blood stasis and local congestion. Of the tincture (strength 1 to 20 parts), five or six drops should be given every six hours. Of the powdered strophanthus, the dose is from a quarter to a half a grain, at like intervals. In one case, Dr. Williams gave one grain of the powder, but recognized no bad effects; on the contrary, it gave satisfactory re ults.

Book Notices.

Wood's Medical and Surgical Monographs. Vol. I. *No. 2.* Contents: *Gonorrhœal Infection of Women*, by Wm. Japp Sinclair, M. A., M. D. *Giddiness*, by Thomas Granger Stewart, M. D. *Albuminuria in Bright's Disease*, by Dr. Pierre Jaenton. 264 octavo pages. Heavy paper. Price $1.——*No.* 3. *Neurasthenia and its Treatment* and *Antipyresis and Antipyretic Methods of Treatment*, both by Dr. H. Von Ziemssen. *Tongue as an Indication of Disease*, by W. Howship Dickinson, M. D., F. R. C. P. *Treatment of Gastric Goitre*, by T. M. Howell, F. R. C. S. *New Remedies from 1878 to 1888*, by Dr. C. Cauquil. 250 octavo pages. Heavy paper. Price $1. (From Publishers.)

As stated in our February No., Messrs. William Wood & Co., of New York, have substituted the monthly publication of these "Monographs" for their "Medical Library" publications; and have so arranged as to sell any one monthly issue for $1, while the annual subscription is $10. Any doctor who can possibly afford it is very much in his own light who does not subscribe *annually* to these "Monographs;" for he will find in them many valuable papers, all by authors of recognized ability and authority—that he is not apt to find anywhere else. It is of course impossible for us to note the points made in the numerous articles in these successive monthly issues; but the titles of each article with the name of the author attached will give at once an idea of range of value, and indicate the merit of the several papers. The issues of each three months are collected into a volume, and are indexed with much thoroughness, so that it is not difficult to find references to articles published. Thus, with

the March issue (or No. 3) we find a neatly printed title page for Vol. I, and an index to the volume. This now completed Vol. I—including the January, February and March issues—makes a fine work of 773 octavo pages, containing eleven distinct monographic essays on as many subjects of daily practical importance to the physician and surgeon. By all means become an annual subscriber if it is possible. The address of the publfshers is 56 and 58 Lafayette Place, New York, N. Y.

Encyclopædia of Practical Receipts and Processes, Containing over 6,400 Receipts. By WILLIAM B. DICK Fifth Edition. New York: Dick & Fitzgerald, Publishers. 1888. Large 8vo Pp. 607. Double column. Clear type and distrnct headings. Cloth. Price $5.25. (From Publishers.)

Such a work as this should be in the library of every family. It contains information in plain language applicable to almost every industrial and domestic requirement. We do not know of the publication of a book of so many values to any one and everybody. To the chemist, druggist, pharmacist, nurse, doctor, patient, and all others related to the use of means for the relief of the sick, it gives formula after formula that no memory can retain, but which are useful. It gives the composition of most of the patent and proprietary medicines, ointments and salves, and tells even how to make *foreign* mineral waters out of materials at hand in any of *our* country drug shops. It is a wonderful book. It tells the farmer, the fruit and the vine grower, and the cattle raiser, how to prepare many things that are of daily use to them. It tells the house wife how to cook, to pickle, to preserve; how to mend broken crockery; how to varnish, paint—how, in short, to make old things become new and bright as a silver dollar. All the receipts, formulæ, etc., are made easily available by the addition to the book of an excellent index. Such a book is useful to every body.

Merck's Index of Fine Chemicals and Drugs for the Materia Medica and the Arts. By E. MERCK. New York. 1889. 8vo. Pp. 156. Cloth: Price, $1. (From Author.)

The claim on the title-page of this book is that it is "a guide for the physician, apothecary, chemist and dealer," "comprising a summary of whatever chemical products are to-day adjudged as being useful in either medicine or tech-

nology." Undoubtedly, every apothecary and dealer should have this book, for it gives the list of all the chemicals and drugs for sale by Mr. Merck, with the prices attached. But it is a book that practitioners who have to economize in their expenditures can very easily dispense with; for not even the chemistry, the symbols, the physiological action, the therapeutic uses or doses are appended to the names of any of the 5,000 articles alphabetically named. The proper revision of such a book, however, would make it one of the most useful works to the profession that could be published, as a constant reference book.

Theory and Practice of Obstetrics, including Diseases of Pregnancy and Parturition, Obstetrical Operations, etc. By P. CAZEAUX, Adjunct Professor Faculty of Medicine, Paris, etc. *Remodeled and Rearranged, with Additions and Revisions.* By S. TARNIER, Professor of Obstetrics and Diseases of Women and Children, Faculty of Medicine of Paris. *Eighth American Edition.* Edited and Revised by ROBERT J. HESS, M. D., Physician to Northern Dispensary, Philadelphia. *With an Appendix,* by PAUL F. MUNDÉ, M. D., Professor Gynæcology New York Polyclinic, etc. With Chromo-Lithographs, Lithographs, and other Full-page Plates, and 175 Wood Engravings. Philadelphia. P. Blakiston, Son & Co. 1889. Large 8vo. Pp. 1221. Cloth—Students' Edition. Price, $5. (For sale by West, Johnston & Co., Richmond.

Every old practitioner is familiar with "Cazeaux' Obstetrics;" and those of more recent graduation have for years used the revised editions of "Cazeaux and Tarnier" as their text-book. This is the work of which Dr. Fordyce Barker has said that it is "of rare merit and superior excellence." Dr. Wm. Goodell deems this "work on obstetrics the best yet published." Dr. Gaillard Thomas writes that it is "just what is needed by every practitioner." Dr. Wm. T. Lusk remarks that it "will always remain an inexhaustible mine of information." With comments so favorable about the original volume, from authors so able to judge of its merits, and from teachers who know so well the wants of the general practitioner, we cannot hesitate to recommend especially the present edition, which has been revised so as to make it include all the important advances. This work seems to cover nearly every point, including even most of the vexing dystociæ. We should mention for the benefit of the purchaser that the Publishers issue this same work in two volumes, on finer paper, and with more durable binding, at prices ranging from $11 to $15, which latter is the price for Morocco binding. But the type is the same, and the mate-

rial an exact reprint of this "students' edition," which is good enough for any library, and costs only $5. Theoretically and practically, this is a most excellent work for student or practitioner. The illustrations are all excellent.

Pathology, Clinical History and Diagnosis of Affections of the Mediastinum other than those of the Heart and Aorta. By HOBART AMORY HARE, B. Sc., M. D., Demonstrator of Therapeutics and Instructor in Physical Diagnosis, University of Pennsylvania, etc. Philadelphia: P. Blakiston, Son & Co. 1889. Cloth. 8vo. Pp. 150. Price, $2. (From Publishers.)

This essay received the Fothergillian Medal of the Medical Society of London, March, 1888. Its deductions are based upon carefully-selected and well-compiled tables, giving the clinical history of the only 520 cases of such affections as could be found recorded in medical history up to the time of presenting the essay. Of these, 134 were cases of mediastinal cancer, 98 of sarcoma, 116 of abscess, 16 of non-suppurative inflammation, 21 of lymphoma, 7 of fibroma, 6 of hæmatoma, 11 of dermoid cyst, 8 of hydatid cyst, and 104 of various distinctive mediastinal diseases. Three pages of six figures present illustrations of some of the more remarkable cases. This work becomes classic for all future time, for the researches of Dr. Hare seem to have been quite complete, the records accurate, the descriptions good, and the deductions logical. As a summary of conclusions from this essay, we learn that in the order of frequency of occurrence of such mediastinal diseases as are here studied, are cancer, abscess, sarcoma, and lymphoma and lymphadenomata; that the anterior mediastinum is more frequently affected than the other two spaces; that most mediastinal growths occur in male adults; that cancer and sarcoma of this space are necessarily fatal, and that abscess is recovered from in about 40 per cent. of cases.

Year Book of Treatment for 1889, being a Critical Review of the Practice of Medicine and Surgery during 1888 By TWENTY-TWO ENGLISH CONTRIBUTORS. Philadelphia: Lea Brothers & Co. 1889. 12mo. Pp. 344. Cloth. (From Publishers.)

It is impracticable to review such a work further than to answer the questions, Is it well done, badly done, or indifferently done? Our answer would be that the work undertaken has been magnificently well done. It furnishes a full account of all the more important advances made in the treatment of diseases, up to September 30, 1888, in each of

the fifteen or eighteen special departments into which the practice of medicine is divisible—including midwifery and recent pathological and clinical observations, so far as they may bear upon treatment. The authors prove their competent ability to make thorough reviews—if their names had not satisfied the profession of such ability. Contributions from all countries have been reviewed. A full and well-arranged index, as well as the table of contents, very materially help the owner of book to make a ready reference.

Treatise on Hysteria and Epilepsy. By J. LEONARD CORNING, M. A., M. D., Consultant in Nervous Diseases to St. Francis Hospital, etc. 1888. George S. Davis, Detroit, Mich. Paper, 12mo. Pp. 176. Price 25 cents. In cloth, 50 cents. (From Publisher.)

This is one of "The Physicians' Leisure Library," which should be well patronized, because it furnishes an excellent monograph each month for the moderate price of $2.50 a year. The present "Treatise" is in keeping with the best of the former issues of this series, both in the selection of the worthiness of the author and in the practical value of what is published. Dr. Corning is especially well known to the readers of this journal. His "Treatise" is an amplification of a series of papers on epilepsy and hysteria which appeared in 1887 in the *New York Medical Journal* and in *Gaillard's Medical Journal*, with some concluding observations on epileptic insomnia. The papers are full enough to state all the known facts of practical value connected with the subject, while at the same time are not too full for an evening's reading and study.

Operations of Surgery. By W. H. JACOBSON, F. R. C. S. Assistant Surgeon Guy's Hospital; Teacher of Operative Surgery, and Joint Teacher of Practical Surgery in Medical School, etc. With 199 Illustrations. Philadelphia: P. Blakiston, Son & Co. 1889. Large 8vo. Pp. 1006. Cloth, $5.; Leather, $6. (For sale by West, Johnston & Co., Richmond).

This is a book that every surgeon should have. Incidentally only does it refer to matters of diagnosis and pathology; but all of its diagnostic points are such as are very valuable, and should be remembered when about to undertake an operation. Its special excellence consists in its clear description of every detail of specific operations, aided by wood cut illustrations, and all the details of operations in a general sense. Where the author is wanting in personal experience or observation, he has studied out most minutely the operations of the recognized authorities, and describes them with a representative clearness that is remark-

able for it succinctness in most cases. If there be omissions of descriptions which general surgeons will notice, it will be found in the chapters on operations for ovarian troubles. Thus we do not find in the index any reference to Battey's operation, or even distinctively to Tait's ovarian operations. Still on the principle that "a rose would smell as sweet if known by any other name," we find all the details of ovariotomy laid down so well that the practical surgeon can yet keep this before him as his guide book. A very important feature of the author's study consists in the many cautions he gives in the various stages of an operation, and in telling of the things to be kept continuously before the mind in special operations, how to meet emergencies, etc.

Questions and Answers on the Essentials of Surgery. By EDWARD MARTIN, A. M., M. D., Instructor of Operative Surgery, University of Pennsylvania, etc. With 90 Illustrations. Philadelphia: W. B Saunders. 1888. Cloth. 12mo. Pp. 302. Price $1. Interleaved edition for taking notes, etc., $1.25. (From Publisher.)

The demand for this series of books has grown up from the very nature of the work imposed upon the student at our colleges of to-day. It is impossible for them to read all that is mapped out for them, or to hear with retentive enough memory all that is said in the five or six lectures a day to know what is essential and what is not. This book of questions and answers separates the wheat from the chaff, and is of great service to the student. It is also valuable for the practitioner who wishes to review his studies. And especially is it useful to him who is refreshing himself with reference to examinations before such boards of examiners as the Medical Examining Board of Virginia, or that of North Carolina. This volume is marked "Saunders' Question Compends, No. 2." We have not seen No. 1.

Reference Hand-Book of the Medical Sciences. By VARIOUS WRITERS. Illustrated by Chromo-Lithographs and Fine Wood Engravings. Edited by ALBERT H. BUCK, M. D., New York city. Vol. VII. New York: William Wood & Co. 1889. Royal 8vo. Pp. 795. Cloth. (From Publishers).

This Reference Book is as indispensable to the medical book student as a dictionary to a family pretending to cultivation in letters. It embraces "the entire range of scientific and practical medicine and allied science," compiled by American authors. The present volume includes all subjects that come alphabetically between the syllables TERAT and WORMS. Vol. VIII, will take up all the words after

this last one. And then we may speak of the completed work as the alpha and omega of literature about medicine. Many of the sections amount to monographs on a subject. For instance, to the word "Urine," about 40 of these closely-printed double column pages are devoted, which is about the equivalent of a book of about 160 or 175 pages of the usual book size. About 60 pages, (equal to about 250 ordinary size 8vo. book pages) are taken up with the words Uterine and Uterus. This Reference Hand-Book takes practically the place of a library.

Atlas of Venereal and Skin Diseases. *With Original Text.* By PRINCE A. MORROW, A. M., M. D, Clinical Professor of Venereal Diseases, and formerly Clinical Lecturer on Dermatology, University of City of New York, etc. New York: William Wood & Co. 1888 and 1889.

We take advantage of Fasciculi X, XI, and XII, of this magnificient Atlas, to repeat in substance a general description of the work for the benefit of the many new subscribers to this journal who commence with this issue.

This *Atlas of Skin and Venereal Diseases*—the best that has ever come from the press in any country—is being published in fifteen monthly Parts or Fasciculi, and hence will be completed in three more issues. Each Fasciculus contains about 24 to 32 large folio pages of excellent press-work text, and five chromo-lithographic plates of the same folio size—at $2 per Part, or $30 for the entire issue—but is sold by subscription only. The work comprises original illustrations and selections from the Plates of Professors Kaposi and Neumann, of Vienna; Hutchinson of London; Fournier, Hardy, Ricord, Cullerrier, Besnier, and Vidal of Paris; Leloir, of Lille; Keyes, Otis, Piffard, and Morrow, New York; Hyde, of Chicago, and others. The text along with the plates, can be excelled only by the clinical lecture itself.

Fasciculus X, gives plates and texts relative to eczema and psoriasis of the palm, eczema rubrum, dry, scaly and moist forms of eczema seborrhoicum, impetigo figurata and contagiosa, dermatitis exfoliativa, pityriasis rubra, dermatitis medicamentosa—eruptions of potassium, iodide and bromide. *Fasciculus XI*, gives herpes zoster, h. febrilis and h. preputialis, dermatitis herpetiformis, pemphigus vulgaris and foliaceus, and purpura simplex and thrombotica. *Fasciculus XII* represents psoriasis of body, hand and arm, lichen planus, ruber and moniliformis, acne vulgaris and rosacea, molluscum epitheliale and verruca senilis.

Editorial.

American Medical Association.

The Fortieth Annual Session will be held (by change of date) at Newport, R. I., June 25th–28th inclusive. Those intending to attend may get local information by addressing any of the following chairmen of local committees: Dr. F. H. Rankin, of Finances; Dr. H. E. Turner, of Receptions; Dr. C. F. Barker, of Halls and Accommodations; Dr. S. H. Sears, of Entertainments; Dr. W. C. Rives, of Invitations; Dr. H. Ecroyd, of Registrations; Dr. C. A. Brackett, of Exhibits; Dr. P. F. Curley, of Transportations; the Chairman of Committees, Dr. R. H. Stover, and the Local Secretary, Dr. V. M. Francis, of Section Work and Programme. Hotel accommodations will be abundant—13 hotels.

Unusual large numbers of papers are promised for each of the Sections. Special attention is called to the following Rules, etc.:

It shall be the duty of every member of the Association who proposes to present a paper or report to any one of the Sections, to forward either the paper, or a *title* indicative of its contents, and its *length*, to the Chairman of the Committee of Arrangements at least one month before the annual meeting at which the paper or report is to be read. It shall also be the duty of the Chairman and Secretary of each Section to communicate the same information to the Chairman of the Committee of Arrangements concerning such papers and reports as may come into their possession or knowledge for their respective sections, the same length of time before the annual meeting. And the Committee of Arrangements shall determine the order of reading or presentation of all such papers, and announce the same in the form of a programme for the use of all members attending the annual meeting. Such programme shall also contain the rules specified in the By-laws and Ordinances concerning the consideration and disposal of all papers in the Sections.

No report or other paper shall be entitled to publication in the volume for the year in which it shall be presented to the Association, unless it be placed in the hands of the Committee of Publication on or before the first day of July. It must also be so prepared as to require no material alteration at the hands of its author.

Every paper or address received by this Association, or

by a Section, and ordered to be published, and all reports of committees, and all plates or other means of illustration, shall be considered the exclusive property of the Association, and shall be published and sold for the exclusive benefit of the Association.

ORDINANCES.—*Resolved*, That the several Sections of this Association be requested, in the future, to refer no papers or reports to the Committee of Publication, except such as can be fairly classed under one of the three following heads, namely: 1. Such as may contain and establish *positively* new facts, modes of practice, or principles of real value. 2. Such as may contain the results of well-devised original experimental researches. 3. Such as present so complete a review of the facts on any particular subject as to enable the writer to deduce therefrom legitimate conclusions of importance.

Resolved, That the several sections be requested, in the future, to refer all such papers as may be presented to them for examination by this Association that may contain matter of more or less value, and yet cannot be fairly ranked under either of the heads mentioned in the foregoing resolution, back to their authors with the recommendation that they be published in such regular medical periodicals as said authors may select, with the privilege of placing at the head of such papers, "Read to the Section of the American Medical Association on the day of , 18 ." (Vide *Transactions*, vol. xvi., p. 40.)

Resolved, That no report or other paper shall be presented to this Association unless it be so prepared that it can be put at once into the hands of the Permanent Secretary, to be transmitted to the Committee of Publication. (Vide *Transactions*, vol. xvii., p. 27.)

State Medical Examining Laws Summarized.

We compiled the following statements almost entirely from the "Report on Medical Education, etc.," by the Illinois State Board of Health:

Alabama.—There is a medical society in each county of the State in affiliation with the Medical Association of Alabama. There is a Medical Examining Board of five members in each county society, and a State Medical Examining Board composed of ten members, elected by the State Medical Association. Every person proposing to practice in Alabama must pass a satisfactory examination before one of these Boards. The County Boards examine none but graduates

of reputable colleges who propose to locate in their respective counties; the State Board alone can examine non-graduates. The examinations are principally written and require about a week to get through. The standard of requirements is 75 per cent.—both by the State and the county boards. All of the papers handed in are reviewed by the State Board, and then filed with the State Board of Health. The following is a tabular statement of amount of work done by the Alabama Boards during 1887—the detail report for 1888 being not yet published.

NAMES OF COLLEGES, ETC.	No. of Applicants.	Certificates	
		Granted.	Refused.
Medical College of Alabama	32	27	5
Atlanta Medical College, Georgia	5	2	3
Southern Medical College, Georgia	1	1	
Medical Department, University of Georgia			1
Georgia College of Eclectic Medicine	1		1
Rush Medical College, Illinois	1	1	
Kentucky School of Medicine	2	2	
Louisville Medical College	1	1	
Louisville Hospital College of Medicine	1	1	
Medical Department, University of Louisville	1	1	
Charity Hospital Medical College, Louisiana	1	1	
Medical Department, Tulane University, Louisiana	2	1	1
Medical Department, University of Louisiana	1	1	
Baltimore Medical College, Maryland	1		1
College Physicians and Surgeons, Baltimore, Md.	3	3	
Medical Department, University of Maryland	1	1	
Detroit Medical College, Michigan	1		1
St. Louis Medical College	2	2	
College Physicians and Surgeons, New York	1	1	
Medical Department, University City of New York	1	1	
Cincinnati Eclectic Medical College, Ohio	1		1
Jefferson Medical College, Pennsylvania	3	2	1
Memphis Medical College, Tennessee	1		1
Med. Dept., University of Nashville and Vanderbilt	7	7	
Medical Department, University of Tennessee	3	3	
Medical Department, University of Vermont	1	1	
Medical College of Virginia	2	2	
Medical Department, University of Virginia	2	2	
Royal University of Ireland	1	1	
Colleges not named	3	2	1
Howard Medical College (for colored), Washington, D. C.	2	1	1
Meharry Medical College (for colored), Nashville, Tenn.	4	1	3
Non-graduates	1		1
Totals	91	69	22

Arkansas.—No examination law.

California has a medical examiners' law and a Board of Medical Examiners in active operation. But we do not find any reference to it in Dr. Rauch's report.

Colorado—Has a State Board of Medical Examiners, composed of nine practitioners appointed by the Governor. Term of office, six years. Every person beginning practice must present his medical diploma to the Board, at one of its quarterly sessions, for verification, or furnish satisfactory evidence of being a graduate of a medical school in good standing. If a practitioner of ten years' standing, he can continue practice without registering his diploma. If the beginner is not a graduate, then he is required to stand examination by the Board. Dr. T. A. Hughes, of Denver, is Secretary.

Connecticut.—No examination law.

District of Columbia.—No examination law.

Florida.—No examination law.

Georgia.—No examination law.

Illinois.—The State Board of Health appointed by the Governor is the Medical Examining Board. A person who is a graduate of a reputable college applying for license to to practice shall present his diplomas for verification, which is sufficient. If not a graduate, he shall be examined by the State Board as to his qualifications, etc., provided the person was not a licensed practitioner in Illinois ten years prior to 1887. Fee for full examination $20.; for midwifery only $10. The Board has authority to revoke licenses for unprofessional or dishonorable conduct. The text of the Illinois law is very lengthy. Dr. John H. Rauch, of Springfield, is Secretary of the Board. Standard of requirements of answers in examinations 80 per cent. After 1890, no college diploma will be acceptable that does not require four years of professional study—including three regular courses of lectures as conditions of graduation.

Indiana.—No examination law.

Iowa.—The physicians composing the State Board of Health appointed by the Governor are also the State Board of Medical Examiners. All the laws are quite similar to those of Illinois. Dr. J. F. Kennedy, of Des Moines, is Secretary.

Kansas.—No examination law.

Kentucky.—Every person shall register his diploma or his authority to practice with the County Clerk of the County in which he proposes to practice.

Louisiana.—No examination law, but the Louisiana Medical Society, at its session this month, will petition for proper enactments.

Maine.—No examination law.

Maryland.—No examination law.

Massachusetts.—No examination law.

Michigan.—No examination law.

Minnesota.—Governor appoints the Board of Medical Examiners—nine in number—"No member of any college or university having a medical department shall be appointed to serve as member of said Board—two of which shall be homœopathic physicians." Each applicant for license shall present evidence of having attended three full courses of lectures of six months each, in a recognized college, and shall then pass a satisfactory examination in the usual departments of medicine, and receive the approving votes of seven out of the nine examiners. This Board went into effect November, 1888. Dr. E. S. Wood, of St. Paul, is Secretary.

Mississippi.—Two Medical Censors in each Congressional District are annually chosen by the State Medical Association. Two meetings a year for examinations. All have to submit to examinations, regardless of diplomas. The law went into effect in 1888.

Missouri.—Practically the same as the laws of Illinois. This State is seeking to make it a requirement that every person applying for license should be a graduate of a reputable college. Dr. George Homan, of St. Louis, is Secretary.

Montana Territory has just secured a law which "requires the examination of all physicians in the Territory," according to the Bozeman *Chronicle;* but we are not informed as to the details, nor the address of the official.

Nebraska.—No examination laws.

New Hampshire.—No examination laws.

New Jersey.—The Medical Society of New Jersey has authority to confer the degree of Doctor of Medicine, which degree is sufficient evidence of a regularly-educated and qualified practitioner. The applicant must have been a regular medical student for three years, including two courses of lectures in some medical college in affiliation with the American Medical Association, and the examinations must be in the presence of the Society, at a regular meeting. But *no law requires* such examination before the person can enter upon practice in that State.

New York exempts from examination all graduates of the

chartered colleges of that State who have been medical students three years, and attended two full courses of lectures during two calendar years. It also exempts all who have received the degree of M. D. from the Regents of the University of the State of New York; and all who have graduated from incorporated medical institutions in other States or countries, whose diplomas are indorsed by the faculty of an incorporated Medical College within New York State, or by the Regents of the University, on the recommendation of a legally constituted board of medical examiners of New York. But all practitioners shall be either graduates of a recognized institution, or be licensed after satisfactory examination by the Regents of the University of the State of New York; and they must register such diplomas as licenses.

Any person assuming the title of doctor of medicine, or who appends the letters "M. D." to his or her name without having received the degree of doctor of medicine from an authorized college or board, shall be punishable by fine or imprisonment. The law is very lengthy, complicated and difficult to execute in its full intent. There are three boards of examiners: One represents the State Medical Society—Dr. Henry Hun, of Albany, Secretary; the second represents the Homœopathic State Medical Society—Dr. Bacon, of New York City, Secretary; and the third, the Eclectic State Medical Society—Dr. Boskowitz, of New York City, President. Dr. David Murray, of Albany, is Secretary of the Regents of the University of the State of New York.

North Carolina.—The State Board of Medical Examiners is composed of seven members, elected every six years by the Medical Society of the State of North Carolina. It has to examine every applicant for license to practice in that State—graduate or not. Examinations are held annually at the time and place of meeting of the State Society. But temporary licenses (to hold good only until the next regular annual session of the Board) may be issued in the interim by two members of the Board. Examinations, including those for temporary licenses, are hereafter to be in writing, and the standard fixed shall be 70 per cent. The examination papers of those to whom temporary licenses are granted shall be submitted to the Board at its next annual session, when the Board may, in its discretion, license the candidate permanently, with or without re-examining him. Dr. W. J. H. Bellamy, of Wilmington, is Secretary. During the Session of 1888, there were 53 applicants for examination. Of these, 47 were graduates of medical col-

leges, and 6 were not graduates. Granted licenses, 36; of these, 1 was a non-graduate; 17 were rejected—12 graduates and 5 non-graduates. The names of the colleges granting the diplomas are omitted from the printed record—whether by design or negligence, we do not know.

Ohio.—No examination law.

Oregon repuires all practitioners, according to recent enactment, to have diplomas of graduation or certificates from the Board of Medical Examiners, but we have not seen the law, nor do we know the address of the Secretary.

Pennsylvania.—No examination law.

Rhode Island.—No examination law.

South Carolina has just established a State Board of Medical Examiners. It is to be appointed by the Governor. Every future applicant for license to practice, *except* graduates of the Medical Colleges of the State of South Carolina, will have to pass examinations before this Board—whether graduates of other colleges or not. We have not seen a report of their work for the year. Dr. J. C. Wilcox, of Darlington, Secretary.

Tennessee.—No examination law.

Texas.—No examination law.

Utah.—No examination law.

Vermont.—No examination law.

Virginia.—The Medical Examining Board of Virginia is composed of 37 members—three regular practitioners from each of the ten Congressional Districts and two from the State-at-large; and five homœopaths selected from the State-at-large on nomination by the Hahnemann Society. The 32 regular members are nominated by the Medical Society of Virginia to the Governor for Commissions; but he has no power to appoint or commission unless the said Society fails in its duty of nomination. The Board meets during the Spring and Fall of each year—the Spring session being in Richmond, and the Fall session being at the place and time of meeting of the Medical Society of Virginia. Other meetings may be held upon call. Examinations are written, and include the eight grand divisions of Anatomy; Physiology; Chemistry; Materia Medica and Therapeutics; Practice of Medicine, including Diseases of Children; Surgery; Obstetrics and Diseases of Women; and Hygiene and Public Health. Three hours allowed to each subject. Standard of requirements 75 per cent. Each candidate must be examined by the Board in session, unless a very special reason demands an intermediate examination, when a Committee of the Board is called for the purpose. The Board

publishes its proceedings—the last report being in our November No. 1888. The Spring meeting of 1889 will be in Richmond, beginning 9 A. M., Wednesday, April 10th. Dr. Hugh M. Taylor, of Richmond, Secretary.

Washington.—No examination laws

West Virginia.—No examination laws.

Wisconsin.—No examination laws.

It will thus be seen that Virginia, North Carolina, South Carolina, Alabama and Minnesota are the only States having Boards of Medical Examiners worthy of the title.

The South Carolina law, at present, is defective in that the State Board is appointed by the Governor; and furthermore the law exempts graduates of colleges in South Carolina from the privileges and tests of examinations by its own State Board—thus unwittingly reflecting most severely upon the ability of the South Carolina college to graduate students on as high a standard as is required of graduates of colleges in other States, and thus seriously injuring the standing of the very college it should have been its purpose to elevate. This was a most serious blunder of the law and one which the College of that State should at once seek to remove.

The objection to the Minnesota law is only that the Governor appoints the Board, instead of allowing the profession to select. In some respects it is a superior law. The results of examinations are not detailed in the report before us; hence we cannot tabulate the report.

The Mississippi *law* does not seem specially defective; but the reports before us, on which to base an opinion, are so meagre and generally stated, that we are unable to speak of it with definiteness as to the details of its operations. Hence, we have to omit a tabular statement of licenses granted and refused, as we have also to do in the case of South Carolina.

The important and commendable features of the Virginia, North Carolina and Alabama Medical Boards, are

1. They are under the control of the medical professions of their respective States, and not subject to changes by changes in the political bias of different Governors. *Medical* examiners are elected by medical men, and thus their respective Boards are more or less reflective of the Medical ability of the several States.

2. The members are not connected by any professional relationship with any college, and hence are not biased in favor of any local or State institution.

3. The test of merit, as shown by the results of the ex-

aminations, is the governing principle, which decides who are to be licensed as practitioners—regardless of the possession or non-possession of college diplomas, which have been shown to be worthless in too many instances.

That there is need for examinations to test the merit of diplomas—even from some excellent colleges—we may summarize the last reports of the Virginia, North Carolina and Alabama Boards:

	No. Examined.	No. Graduates Examined.	No. Graduates Passed.	No. Graduates Rejected.	
North Carolina—					
Annual 1888 examination,	91	90	69	21—about	23.3 per cent.
Alabama—					
1 year ending April, 1888,	53	47	35	12— "	25.5 "
Virginia—					
4 years ending Dec. 1888,	243	232	181	48— "	20.7 "
	287	369	285	81— "	23.2 "

Total number non-graduates, 18; of these 1 was examined by Alabama Board and rejected; 6 by North Carolina Board—1 passed and 5 rejected; 11 by Virginia Board—5 passed and 6 were rejected. Total passed 6, or 33⅓ per cent; 12 rejected, or 66⅔ per cent.

Medical Examining Board of Virginia.

Foul-tongued slander and insult, disgraceful to the authors, and harmful to the interests of truth, have been hurled against the Medical Examining Board of Virginia by certain parties who seem to prefer to make sensational gossip out of that which demands simply deliberate consideration. For instance, we find that the *Journal of National Association of Railway Surgeons* circulates statements, with the strange remark, "and no one can doubt them," which so pervert the facts that the reality is scarcely recognizable. And then, with a baldness of assumption that would be unbecoming in the lowest grade of a ward or a cross-roads political jumper, says, "the [Medical Examining] Board [of Virginia] is very corrupt and demands public criticism, and a demand should be made for the members to resign at once the positions they have so shamefully disgraced." In our March number, we referred to some misrepresentations of the Board in the Philadelphia *Medical Times*, which whimsically intimated that the Virginia Board was inimical to one of the Pennsylvania colleges. The *Medical Register* is now "very sorry to have to announce" certain things which are not real, and thinks it "likewise demonstrated" that the Board is in an "utterly incompetent state," because

the "President ordered certain candidates to have only a nominal examination of only ten minutes," when the fact is that the President never *ordered* any such thing, nor has he any power to issue any such order, nor was such examination ever held under any such order. The simple truth of the case alluded to was that the candidate falsified so boldly and yet so plausibly in his letter to the former President of the Board as to lead him to suppose for the moment that an examination of one who made such professions as he did, and who could present such testimonials as he claimed to have (although he never had them), would in reality be only a formality; and hence, in a personal letter —not an official order—suggested to one of the Examiners that the examination in that case would be a mere form. A misunderstanding between the Examiner and the President did occur until an exchange of letters by mail, in some 48 hours, relieved every misunderstanding, and established the candidate as "a gay deceiver," for he had written to the President things which the Examiner and others never said.

Will a Medical Examiner Please Answer?

A few days ago a prominent physician of this city received a letter from a country practitioner who commenced the practice of medicine many years before that "bone of contention," the Medical Examining Board of Virginia, was established. This practitioner had encountered an obstinate case, which resisted all the skill of his many years' experience, and one that was beyond the ken of all the medical lore he had acquired from the "old women" of the neighborhood, or from rubbing his head against —— College walls. The following is a *verbatim* description of the case as sent to our city friend for suggestions as to diagnosis and treatment:

"He first commence heaving tuesday night and he conplain With naussure around his Nable he has a large Nable any way he is very sore on his stomach and has very high enward feaver and he gets Light headed of times and he is very costive we give him too Doses of oil and one Dose of sals and it Never acted until we give him interjecture and he aint got very good apertite."

Will not this case as effectually stump the Medical Board of Examiners of Virginia or any other State as their questions have floored applicants for license in the past? Possibly, a kind of "put-yourself-in-his-place" feeling may suggest itself to the Board in the future. A friend by our side

suggests that such a letter as the above presents a good argument for abolishing the Board of Examiners, "for, says he, "if the Board continues in service much longer, we won't have any more such fun as letters like this give."

"The Alabama Medical and Surgical Age

Is one of the medical journals of these United States" of which we have written favorable notices each month since its first copy came to us in December, 1888, but which have been left out by our printers, who generally cry "too much copy to get in." The *Age* is a finely issued $2 monthly of about 48 octavo pages, published in Anniston, under the editorship of Dr. John C. LeGrand, who enters upon his newly-assumed task with an ability and earnestness that ought to insure an early-established success. He has been very fortunate in securing the services of Dr. W. E. B. Davis, of Birmingham, for the newly-made special department of Gynæcology.

Virginia Medical Advance.

This is a $1 bi-monthly journal—the organ of the Northeastern Virginia Medical Society—of 20 octavo pages, published at Warrenton, Va., under the business management of Dr. Thomas. W. Smith (P. O., Bethel, Va.), with "H. M. Clarkson, Editor, Fortress Monroe, Va." It was a serious typographical omission to have left out the modest title of "M. D." after the name of the editor of a medical journal. Dr. Clarkson is one of the ablest of Virginia doctors, wields an impressive pen, and possesses those qualities of heart which make him popular. Success to him and his.

South Carolina Medical Association.

The Annual Meeting of this Association has been postponed, and will be held in Charleston, S. C., on Wednesday, April 24th, 1889. Excursion rates will be obtainable on all Roads leading to the city, as the Floral Fair will occur during that week. An address will be delivered by Dr. Robert Battey, of Rome, Ga. Dr. W. Peyre Porcher, of Charleston, is the Secretary.

The Medical College of Virginia

Held its 51st Commencement April 1st. The following is a list of the graduates for the year: Drs. W. B. Asbury, E. W. Gee, E. W. Snead, and J. M. Winfree, of Isle of Wight, Lunenburg, Fluvanna and Augusta counties, Va., respectively, passed their examinations after the last annual

commencement, but receive their diplomas this year. Of the past winter's class, the following are the graduates: Drs. W. N. Klase, of Pennsylvania; J. W. Henson, of Bagdad, Ky.; R. O. Owen and L. M. Thacker, of Lynchburg; L. E. Cofer, of Richmond; E. D. Davis, J. N. Ellis, O. J. Henderson, and J. B. Rawlings, of Greene, Buckingham, Northumberland and Brunswick counties, Va., respectively. Hon. W. L. Wilson, of Charlestown, W. Va., Member of Congress from that District, delivered the address to the graduates.

The Virginia State Examining Board of Pharmacy

Held its third annual session in Richmond, Va., March 26–29, for the examination of applicants for license as practical pharmacists in the State of Virginia. No one (since 1886) can undertake the business of practical pharmacy in Virginia without undergoing an examination as to his ability, just as in the case of applicants for the practice of medicine. The Virginia Examining Board of Pharmacy is composed of five pharmacists, elected by the Virginia Pharmaceutical Association, commissioned by the Governor —the Examiners being elected for the period of five years, but in such manner that one is retired each year, and another takes his place. Mr. T. Roberts Baker, of Richmond, known in his own as well as the medical profession as one of the most eminent of Virginia pharmacists, has been President since the organization of the Board; but his term expired with the conclusion of the present session, when Mr. C. B. Fleet, of Lynchburg, entered as his successor as a member of the Board; and Mr. Robert Brydon, of Danville, was elected President of the Board. Very complimentary resolutions were unanimously adopted by the Board, expressive of appreciation of the special merits and efficiency of Mr. Baker as an officer of the Board, and regretting that the law compels his retirement as a member.

During the session just adjourned, certificates as Licentiates in Pharmacy, were granted to Messrs. Hugh H. Tebault, R. L. Walton, N. A. McCurdy and W. R. Martin, of Norfolk; W. S. Sowers and R. L. Nelson, of Warrenton; W. O. Hope, of Portsmouth; E. M. Mallan, of Lynchburg; V. B. Jackson, of Luray; E. L. Robey, of Herndon, and H. B. Urqhart, of Richmond. The Board, to stimulate competitive examination, voluntarily offers two annual prizes. This year the highest prize was awarded to Mr. Tebault, and the Second to Mr. Walton.

Alumni Association of the Medical College of Virginia

Was organized March 29th, of which Rev. John B. Newton, M. D., D. D., Rector of Monumental Episcopal Church, Richmond, Va., was elected President, and Dr. William E. Mercer, of Richmond, Secretary. Drs. W. L. Devaney, of Waverly, Va., C. W. P. Brock, of Richmond, Va., S. W. Dickinson, of Marion, Va., and Geo. A. Foote, of Warrenton, N. C., were elected Vice-Presidents; and Dr. Edward McCarthy, of Richmond, Va., Treasurer. Drs. J. S. Cullen, J. N. Upshur, and Geo. Ben. Johnston, of Richmond, were appointed a committee to formulate By-laws, etc. Drs. Wooldridge (P. O. not given), Charles H. Chalkley, H. C. Tabb, W. A. Lee, and T. J. Riddell, of Richmond, were appointed the Standing Committee on Nominations. Drs. John R. Wheat, Daniel J. Coleman, and Aaron Jeffery were appointed a Standing Committee to ascertain the names and addresses of the alumni. It was voted to award annually an Alumni Gold Medal to the most proficient student in the graduating classes; and Drs. H. C. Tabb and James B. McCaw, of Richmond, and W. Otway Owen, of Lynchburg, were appointed a committee to design the medal. Drs. W. W. Parker, Robert M. Pulliam, L. C. Bosher, the President and Secretary *ex officio*, were elected the Executive Committee. Dr. C. W. P. Brock, of Richmond, Va., was chosen as the Orator for the first annual meeting in March, 1890.

The following honorary members were elected, all of whom are either members of the Faculty, ex-members, members of the Adjunct Faculty, or of the Board of Visitors: Drs. J. B. McCaw, M. L. James, J. S. Wellford, George Ben. Johnston, Edward C. Smith, James P. Roy, Richmond; W. Otway Owen, Lynchburg; D. W. Lassiter, Petersburg; S. C. Gleaves, Wytheville, and Carter Braxton, King William. The following additional honorary members were elected: Drs. Brown-Sequard, of Paris; Hunter McGuire, of Richmond; Martin P. Scott, of Blacksburg; I. K. Page, of Baltimore; John G. Skelton, of Richmond; James Dunlop Moncure, of Williamsburg; Landon B. Edwards, of Richmond; George Ross, of Richmond; Z. B. Herndon, of Ashland, and A. Z. Koiner, of Roanoke.

Messrs. A. M. & F. D. Lawson,

Manufacturers of seamless shirts for the application of Dr. Sayre's plaster jackets, of seamless underwear, of leggings, for plaster treatment of fractures, etc., and of elastic stockings, have removed their office to 783 Broadway, New York City (opposite Stewart's), where, in connection with

their knitting-machine business, they are prepared to fill all orders in their line promptly and satisfactorily. We make this note to correct the address given in the foot-note of Dr. Comingor's article on Treatment of Fractures, etc., in this number.

The Texas State Medical Association

Will hold its next annual meeting at San Antonio, beginning Tuesday, April 23d, and will continue in session through Friday, 26th. Dr. F. E. Daniel, of Austin, is Secretary. The prospects of a good meeting are all very encouraging.

Another Texas Asylum for Insane.

The Texas Legislature has appropriated $150,000 for the erection of another Asylum for the Insane of that State, which is to be located "west of the Colorado." San Antonio will probably be the site.

The New Orleans Polyclinic

Announces that they have secured Dr. R. H. Day of Baton Rouge, La., to fill the important chair of Professor of Diseases of Children. He is an acquisition to the already excellent Faculty, which, we trust, will fully develop the New Orleans Polyclinic to its proper position. We hope to hear of an encouraging opening and a healthy growth of this new but laudable enterprise on the part of the profession of Louisiana.

The Florida State Board of Health Bill,

As recommended by the Florida Medical Society, and reported in our February number, has become a law. The Board is composed of three members, appointed by the Governor, who select additionally a Secretary and a State Health Officer, or Executive (who has to be a recognized physician) from the State-at-large. The Board can establish quarantine at any point, and wherever it sees proper, for the protection of health interests.

An Absent-Minded Doctor

Is mentioned in the *Cincinnati Lancet-Clinic*, March 23d, who recently took unto himself a wife. During the marriage ceremony, when she held out her hand for the ring, he felt her pulse, and asked, "Let me see your tongue?" [No doubt he got enough of it before the bridal trip was over.]

Cyclopædia of the Diseases of Children.

Volume I of this Medical and Surgical *Cyclopædia*, by American, British and Canadian authors, illustrated, edited by Dr. John M. Keating, is announced for issue this month by the publishers, the J. B. Lippincott Company, of Philadelphia, Pa. The work is to be completed in four handsome imperial octavo volumes of about 800 pages each—to be issued at intervals of about three months—but is to be sold by subscription only at $5 per volume for cloth binding, $6 for full sheep, and $6.50 for half Russia. delivered at nearest express office. Among other well selected authors, in Volume I, we notice among distinguished Southern authors, that Dr. J. Wellington Byérs, of Charlotte, N. C., writes the chapter on the "Influence of Race and Nationality upon Disease;" Prof. Wm. C. Dabney, M. D., of University of Virginia, the one on "Maternal Impressions;" Dr. Rudolph Matas, of New Orleans, La, the one on "Dengue," etc.

Typographical.

Dr. Cutter's article, March number, p. 878, line 12, October 25th, 1888, should read, October 25th, 1858.

The Western North Carolina Medical College

Is the name of a new medical college to be established in Asheville, N. C., according to the *Journal of American Medical Association*, March 23d.

The Birmingham (Ala.) Academy of Medicine

Was established in 1854. Dr. J. G. Orton has been its Secretary since its organization. At its monthly meeting, March 6th, Dr. C. B. Richards was elected President, Dr. W. A. Moore, Treasurer, and Dr. Orton, Secretary.

The Students of the Medical College of South Carolina

Presented Professor John Guiteras, late of that College, and Surgeon of the U. S. Marine Hospital Service at that port, with a memorial cup on the occasion of his leaving Charleston to enter upon his duties as Professor in the Medical Department of the University of Pennsylvania.

The National Association of Railway Surgeons

Will hold its annual meeting in St. Louis, Mo., on May 2d and 3d, 1889. Dr. C. B. Stemen, of Fort Wayne, Ind., is Secretary. Dr. W. B. Outten, of St. Louis, is Chairman of the Committee of Arrangements.

Obituary Record.

Dr. John S. Guyer

Was born in Keigly, Yorkshire Co., England, August 4th, 1817, and died at his home, since 1854, in Middletown, Va., December 9th, 1888. His father died while he was a mere child. In 1829, his widowed mother moved to America and located in Middletown, Va. He learned the printing trade, and then became a bookkeeper. Afterwards he studied medicine, and graduated from the Winchester Medical College in 1848. While an advanced student, he beame Demonstrator of Anatomy in that institution. He opened office in 1850 in Bloomery, Hampshire county, now West Va. In 1851, he moved to Montgomery, W. Va. That fall, he returned to Bloomery. In 1854, he moved back to Middletown, Va., where he permanently located. He entered the Confederate Army in 1861 as a Surgeon, and was made Brigade Surgeon afterwards. In 1863, he resigned the Army, and after being taken a prisoner, he resumed practice at his old home. After the war, he was several times made county magistrate. Professionally he was always a leader. Possessed of a good mind, an excellent memory, and a progressive turn, he was exceedingly valuable to the people and profession. At the organization of the Frederick County Medical Society, in 1875, he was elected its President, which position he retained till his death. He joined the Medical Society of Virginia in 1875, and though not usually an attendant, he was always a hard working Fellow for the good of the Society. A good biograpical sketch, written by his friend, Dr. G. W. Larrick, appears in the *Winchester* (Va.) *Times* of December 19th, 1888. Dr. Guyer's ability, usefulness and progressiveness entitle him to a record among those whose memories should be kept green.

Prof. Francis Cornelius Donders,

The ophthalmologist of world-wide repute, died at Hague, March 25th, 1889. He was born at Tilburg, in Brabant, May 27th, 1818, and therefore was 71 years of age.

Dr. John Call Dalton,

The eminent physiologist and text-book author, died at his home in New York City, February 12th, 1889, at the age of 64 years.

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Original Communications.

Art. I.—The Use of Electricity in the Treatment of Diseases of the Female Pelvic Organs.*

By J. WESLEY BOVEE, M. D., of Washington, D. C.

Electricity is not unlike all other things in medicine as regards its invariable tendency to do good even when applied under the most favorable conditions and in the most careful manner. Yet, a great deal of good can be done with it when it is wisely used. It has, I think, been used in medicine about sixty-five or seventy years; and during that period nearly all diseases have been subjected more or less to its influence—usually without any regard to system and frequently without any evidence of reason. This is probably due to the lack of knowledge as its method of influencing living tissues. During the last few years, it has received more attention from scientific men, and its effect upon the human system has been quite thoroughly investigated. The conditions in which it is likely to prove valuable as a means of treatment have to a great extent been classified. For about three years it has been carefully studied in relation with female pelvic troubles, such as

*Read before the Medical Society of the District of Columbia, Dec. 19, 1888.

fibroid tumors, inflammatory deposits of long-standing, subinvolution and ovarian neuralgia.

The treatment of extra-uterine pregnancy in its first few months has probably become the greatest field for it, inasmuch as many so called cases have, in this country, been reported cured by it, and the majority of prominent gynecologists of this country prefer its application to the use of the knife during the first five or six months of this condition. No uniform rules are followed in its application to erratic gestation, some preferring the fradic current, but most advocating the galvanic—claiming it is less liable to produce rupture of the gestation sac. But few of these cases have, I think, been positively diagnosticated, and I believe in but two or three cases in which electricity has been used for this unfortunate condition, have the products of conception actually been seen. I saw one of these and assisted in removing, per vaginam, a five months' fœtus from Douglas' cul-de-sac. The reporter of the case claimed to have diagnosed the condition during the thirteenth week, and began applying the galvanic current. This was continued about three weeks, and the extra-uterine growth continued to increase in size after the use of the galvanic current was discontinued. It is interesting to know that electricity was passed through the pelvic organs two or three times during the month, just after the last menstrual period. I can hardly attribute the death of this fœtus after the end of the fifth month to the use of the galvanic current between the twelfth and the fifteenth week.

Great claims are being presented for the efficacy of the galvanic current in dispersing fibroid tumors of the uterus. Particularly is it advocated in this class of cases by Apostoli, Keith, Newman, Freeman, Englemann and Cutter. Its value in this direction is, I believe, overrated.

In two cases that I had diagnosed uterine fibroids, the growths disappeared after several applications of the electric current. One of these was, as I thought, a fibroid of about one and one half inches in diameter, situated in the posterior wall of the uterus. The woman's general health was bad, but rapidly improved while using a mild galvanic

current twelve times in four weeks. At the expiration of the time mentioned, the uterus had become perfectly normal. My diagnosis was made the first time I saw her, and three subsequent examinations did not lead me to doubt the correctness of it.

The other case was multiple fibroids of the uterus and very troublesome. In this case I used the faradic current to relieve pelvic symptoms. These tumors also disappeared. I believe, however, the electric current was not the real factor in their removal, inasmuch as such growths frequently disappear without any treatment whatever. The other case, I now believe to have been incorrectly diagnosed, that no tumor existed, and that something else was the enlargement I felt, possibly a hypertrophic thickening of the posterior wall of the uterus. My reason for thinking I erred in the diagnosis is that I have treated with galvanism quite a number of patients suffering with uterine fibroids of various sizes, shapes, locations, etc., the treatment in most of them being diligently pursued for some months; and in none of them except the above mentioned, did I notice any diminution in the size of the growth during treatment. One of the two cases cited was one of the first subjected to this kind of treatment, and I was then too enthusiastic in the work to pause for impartial reasoning or to think I might be wrong.

At any rate I cannot see what reason the advocates of "electrolysis of fibroids" have for so terming the electric action they describe. Certainly no breaking up of the chemical constituents of the growths occur, except, perhaps, some simple salt like sodium chloride is decomposed. But the albuminoids and other complex proximate principles are not broken up; consequently electrolysis does not occur.

Even if it does take place at the poles, chemical change does not extend any appreciable distance into the growth. In hard fibroids of from nine to twelve inches in diameter, I cannot conceive how any electrolytic action can take place throughout the tumor without irreparable damage to the delicate adjacent tissues. How can a current so powerful

be confined to the growth when the surrounding more delicate tissue has so much greater conductivity.

The galvanic current has been used considerably in the treatment of inflammatory deposits about the uterus, punctures having been made and powerful currents used as in the treatment of fibroids. I believe mild currents, if applied oftener and longer, both in duration of application and period of treatment, will prove more serviceable. This has been the plan of treatment of the cases related in this paper.

The profession in general has not shown much ambition in the treatment of acute inflammations with electricity. I have frequently used it in decidedly acute inflammations, and even in the first stage with most excellent effect. I was pleased by a short article on that subject by Dr. E. H. Grandin, of New York, that appeared in an August number of the *Medical Record* (vide Vol. XXXIV, 204, 1888). My limited experience is in accord with that of Dr. Grandin. I think the electric current, either the galvanic or the faradic may many times be wisely substituted for the knife in diseases of the ovaries and oviducts. Mr. Lawson Tait, basing his opinion upon a few cases that came to him for operation after having been treated by electricity (no description of this treatment being offered) denounces strongly the application of electricity for such cases (vide *Medical Record*, N. Y., 1888, XXXIV, 553). I do not believe that had Mr. Tait given electricity a fair trial in his own practice he would have yet reported his second thousand of consecutive abdominal sections. He has become so expert in abdominal surgery that I doubt his allowing this form of treatment to be superseded by any other without great reluctance.

I have had a few cases in which the action of the continued galvanic as well as the faradic current has been positively intolerable. The history of one of them appears in this paper (Case No. 8).

Certainly Case No. 7, was far more nervous than this patient, yet the effect was so decidedly opposite to the result in No. 8.

There is a class of cases that cannot tolerate the application of electricity, not even the amount of electro-motive force just sufficient to overcome the resistance of the tissues through which it passes. I am unable to see anything about these patients that could, in any respect, account for the intolerance of the current. It is probably an idiosyncracy that will only be known after attempts to apply the current have been made. I have usually applied the galvanic current just strong enough to be not uncomfortable to the patient. Each seance usually lasted from fifteen to thirty minutes, and usually repeated on alternate days, but occasionally applications were made every day. The treatment was usually supplemented by tamponnement with small woolen pledgets that were left in situ until just before the patient was to return for another treatment. The galvanic current was used in every case, and occasionally the faradic current was employed for its tonic effect, and for the relief of pain. It was usually successful in both of these, and its salutary effect upou constipation was occasionally noticed. I append the histories of a few cases, mostly chronic, pelvic inflammations, showing the effect of the mild, galvanic current.

Case 1.—Mrs. W., æt. 31 years, widow; has three children, the youngest three years old. Last confinement severe—finally delivered instrumentally. Has been an invalid since that event—cannot walk one block; suffers very much with pain in "bottom of stomach"—constant fear her "insides" will fall out; constipated; has continuous discharge from bowels. Menses regular and profuse; appetite poor; general condition bad. I first saw her when she came to my office in a carriage, July 29 last.

An examination revealed perineum torn almost into bowel, and a glairy discharge from rectum. The uterus was very low, considerably enlarged, and firmly retained in a retroverted position by the dense and thick adhesions from a former cellulitis. The cervix uteri was deeply lacerated bilaterally. I applied the galvanic current for twenty minutes, placing the positive pole against the roof of the vagina and the negative on the abdominal wall, just a little above the symphysis pubis, and applied a few woolen

pledgets against the retroverted fundus uteri for gradual pressure. I also gave her the following:

℞. Tr. nucis vomica.
Tr. belladon..... ..... āā ℥ss.
M. et. sig.: 15 drops t. i. d. in water.

This treatment was continued quite regularly three times a week, until October 9, when the pelvic deposit having been entirely absorbed, the uterus in good position, and the patient's general condition much improved, I operated for the perineal and cervical tears. The union was complete in both localities, and three weeks later she resumed her household duties. November 25, I examined this patient, and found the pelvic organs in a perfectly healthy condition. A Simpson sound passed into uterus three inches. She said she had gained thirty pounds in weight since August 1 last, notwithstanding the two operations she underwent in the meantime.

Case 2.—Mrs. H., white, æt. 32 years, came to me September 30 last, and gave me the following history: At the age of twenty years she married, and had two children, both of which are now living. Her husband died six years later. During one of her confinements the cervix uteri was torn, and she had womb trouble following it. During her widowhood she was operated upon for the laceration, and was married again about two years ago. She felt well until last spring, when she had an abortion produced, and was in bed about three weeks following it. The doctor told her she nearly died from fever. Has not felt well since; is thin, delicate and nervous; suffers with profuse menstrual flow every three weeks, and constant bearing-down pain, with headache. After walking a short distance, she is obliged to lie down. An examination revealed the uterus retroverted and bound down by a firm pelvic exudate on every side. The sound passed three inches; cervix was tender; considerable catarrhal discharge was oozing from its canal. Applied a solution of silver nitrate (20 grains to ℥j) to cervical canal, and dry wool tamponade to posterior fornix vaginæ. Two days later she returned, and I began a course of treatment by the galvanic current, as in Case 1, extending the seance to thirty minutes, and applying the wool as before. October 16, made the seventh application.

I succeeded in replacing the uterus, which has no tenderness or catarrhal discharge. Patient states she has gained six pounds since her first visit, and feels comparatively good. November 4 to 6, menstruated—no pain, and nor-

mal quantity. Treatment continued until November 16, when it was discontinued. The uterus was then in normal position, sound passed two and three-fourths inches, and no pelvic adhesions can be found. She feels perfectly well.

Case 3.—Mrs. H., white, æt. 34 years, married, I was called to see her June 28 last, and found her suffering with a large pelvic abscess to the left of and behind the uterus, reaching up into the inguinal region. She had been married twelve years, and had three children. Since the birth of the last child she has had three abortions. Since her last confinement, six years ago, she has suffered with womb trouble; menstruation occurred in latter April, but she did not think she was pregnant again, as no symptom as in former pregnancies was present, except nervousness. She was taken with severe pelvic pains with hæmorrhage from the uterus, on the 17th of June. This began, without warning, a short time after coming in from a drive behind a fractious horse that afternoon. The pains continued until near morning, when her doctor said she passed something that she now thinks was the result of another abortion. She had a fever a few days later, and great swelling and pain in lower abdomen. She suffered so much with pain, that her doctor gave her suppositories of morphia and belladonna, but the fever had never gone away. On my first visit, I found her in bed, with a feeble pulse, some fever, and a hectic flush to cheeks; an eruption all over the body, that she stated had appeared during the past week. I attributed it to the use of belladonna, and it shortly disappeared, after I stopped the suppositories. The uterus was found enlarged, immovable, and very tender. It was pushed forward and to the right by a large abscess that was quite prominent in left inguinal region; fluctuation was distinct through Douglas' pouch as well as through abdominal wall. Considerable sanious discharge from uterus was present. The same day I opened the abscess through abdominal wall, and let out about a quart of yellow pus. A grooved director was then pushed through the vaginal roof, in the median line, behind the cervix uteri, against my right index finger, to the bottom of the abscess cavity. Through the new opening I forced my left index finger. The cavity was then flushed with about a gallon of hot solution of corrosive sublimate, 1 to 1000. A long rubber drainage tube was passed through the abdominal opening and pulled out through vagina. The solution of mercuric chloride was used for cleansing the wound. Patient rapidly improved, and the abscess was healed by the 10th of August.

August 27, she came to my office. Had just had a troublesome and profuse menstrual period, and felt weak, and complained of little jars received in riding on street car. The uterus was found still immovable, somewhat enlarged, very hard, and settled back to a position about normal. The whole pelvic organs seemed to be in a mass, as if set in plaster of Paris. I began using a mild galvanic current, the positive pole, applied to vaginal roof, performing the work. The current was used twenty minutes, and this frequently followed by the negative pole of the faradic current along the spine for five minutes. She was also given the following prescription:

℞. Hydrarg. bichlor..... ..... gr. jss.
Tr. ferri chlor.....ʒv.
Syr. zingiber..... .....ʒj.
Aquæ.....ʒiv.
M. et. sig.: Teaspoonful in water after meals.

This treatment was continued until October 26, at which time she was obliged to return to her home in Pennsylvania. The galvanic current had been applied about three times a week. At her last visit she stated she had just passed her menstrual period, and with very little inconvenience. A careful examination was made at this time. Her general condition was much better, and she complained very little. The uterus was fairly movable, although no smaller, but the pelvic exudate was lessened in amount, and softened.

Case 4.—Mrs. S. M., a widow, 44 years old, first came to my office June 15 last. She had had three children, the last of which was born fourteen years ago. This labor was severe; she was delivered by forceps and torn. She had child-bed fever, and made a bad getting up. She has suffered ever since with profuse menstruation every three weeks, sometimes oftener, and a sensation of weight in her stomach. Large clots were passed every time she was unwell, and the prostration incident to each attack would hardly be overcome in the interval following it. She has been treated by three or four physicians, all of whom told her her trouble was fibroid tumors of the uterus, and treated her with ergot and other remedies. Her last physician, after a course of treatment extending over six months, told her relief would come only with the change of life. Her appetite was poor, and the feeling of weight pronounced. I found the perineum torn down to sphincter ani muscle, the vaginal walls flabby, and the uterus symmetrically en-

larged to about twice its natural size, a little lower than it should be, and fixed. The cervix was bilaterally lacerated almost to the cervico-vaginal junction, and the vaginal roof thickened and very dense. I could not find a fibroid tumor, and so informed her. I applied the galvanic current, as in the other cases, with the occasional application of the positive pole to the interior of the uterus, a few days before the expected flow. Dry woolen pledgets were also placed against roof of vagina, sufficiently large to cause slight upward pressure. I noticed the intra-uterine electrode passed the first time four and one-half inches. She improved considerably; the hæmorrhages lessened in amount and frequency. Early in August, the intra-uterine electrode would pass but three and one-half inches. The flow did not appear in September until near the natural time, and in October it was quite four weeks later, lasting but three days, and containing no clots. It did not appear at all in November, no premonition of it even appearing.

November 3. The uterus is movable to a considerable degree, and is smaller, its cavity measuring but three inches. There is yet some thickening of the vaginal roof.

Case 5.—Miss C., æt. 32 years, white, first came under my care July 12 last, when she came to my office accompanied by her mother. Her history is as follows: Began menstruating at 12 years—has never missed a period nor been free from pain at that time; has become very severe during the past two years, requiring her to take half-grain morphia suppositories, and to remain in bed the day preceding the beginning of the flow and during the first two days of it. The last period was the worst of her life, and she dreads the next—three weeks off. During the intermenstrual periods she has a dull, heavy pain in lower part of abdomen, most marked on the left side. Her appetite is poor, and she is troubled with constipation. Has been treated in Richmond and Philadelphia. She and her mother feared the ovaries would have to be removed, as that had been advised in Richmond and in Philadelphia; they were told nothing else would cure her. She readily consented to an examination, which revealed a small retroflexed uterus and enlarged and unusually tender ovaries, which could be fairly well outlined by the bimanual method of examination, the patient lying in the lithotomy position. They were low, but movable. I began to use the galvanic current that day, applying it every day thirty minutes. The current was very comfortable to the patient. After it

was stopped, I applied a small pledget of wool against the fundus uteri, and allowed it to remain there until just before her return the next day. Once I had to give her a mild laxative. This treatment was continued until she came August 4. She preferred no treatment that day, as she felt she was going to be unwell soon. She was suffering from pain through the pelvis. She consented, however to be treated, and I applied the positive pole of a mild faradic current to the uterine cavity for about ten minutes, the negative pole being placed over hypogastrium. She began menstruating during the following night, and had very little pain, but remained in bed for two days. The flow lasted four days.

August 11. Patient returned and treatment resumed. An examination at this time showed the ovaries to be less tender, and their position a little higher. I pursued the treatment of this patient diligently, hoping to render oöphorectomy unnecessary.

The next menstrual period was passed with but slight uneasiness, and she did not remain in bed. After this period the ovaries could not be felt with the patient lying on her back. I continued the galvanic current for three weeks, applying it on alternate days, after the last menstrual epoch. At this time, September 28, she went to her home in Virginia. At her last visit to me I carefully examined her pelvic organs. The uterus I found in a better position than at first, and, I think, a little larger. The whole pelvic viscera had lost its unusual tenderness. She stated she had gained in weight six pounds. I have not heard from her since she left the city, but think she would return if she was not feeling well.

Case 6.—K. S., æt. 24, white, single, came to me June 15 last, suffering with almost constant pain in lower abdomen, that gets worse after walking even a short distance. Menses profuse and painful, occurring irregularly, although about every three weeks. She cannot go up and down stairs without considerable pain, and that interferes materially with the performance of her duties as housekeeper in a large boarding-house. She confessed having had an abortion performed in June, 1886, after having missed two menstrual periods, and did not get along well afterward, although she did not consult a physician. An examination revealed a dense vaginal roof, holding quite firmly an enlarged, congested and tender uterus; considerable catarrhal discharge was oozing from the eroded cervical canal. A solution of

alum in glycerine was applied to the canal, and the galvanic current was passed through the inflammatory deposit. A small pledget of dry wool, containing some powdered borax, was laid against the external os uteri. The discharge from the canal ceased about the middle of July. The galvanic current was applied thirty-six times, the last application being made October 12, when the uterus was movable, reduced in size to about normal, and the cellular tissue about it showed no abnormal deposit. She was feeling very well, and had passed the last two menstrual periods four weeks apart, without pain or undue quantity of flow. She was working every day.

CASE 7.—Mrs. B., white, æt. 22 years; she is a tall, thin blonde, and has been married six months. She came under my care October 4 last. She had generally had a great deal of pain at the menstrual period, but it has been worse since the date of her marriage. The first menstrual epoch after her marriage was two weeks late, and then appeared only after her taking medicine upon the supposition that she was pregnant. She did not desire children, and believes she prevented it in this instance. She was confined to bed afterwards with pains so severe that, as she says, she had to take large doses of paregoric to live. She has felt badly ever since, suffering with extreme tenderness in lower abdomen and pain in back. Her last menstrual period ceased one week ago.

At her first visit she appeared weak, pale and nervous. The conjunctivæ were pale, and she walked slowly and carefully, with a slight limping on the left side. She complained of frequent and painful micturition, loss of appetite, with frequent nausea, constipation and night sweats. She thought she had malaria, as she was having a chill every day.

October 5, I examined her and found the vagina short, and its walls deeply congested and tender. The uterus, retroflexed and retroverted, was quite firmly held in that position by a thick, cellulitic deposit to the left and behind it. The eroded cervix uteri was covered by a thick mucopurulent discharge. Applied the galvanic current three times a week. October 10, she felt much better. I added faradization of the spinal cord as a tonic.

This treatment continued until October 31, when patient stated she felt real well, and had gained six pounds. She has no trouble with stomach, bowels or bladder. The uterus is movable, but enlarged, very little inflammatory thicken-

ing to roof now felt. Uterus easily pushed forward, but no discharge from cervical canal; appetite good; no nausea.

The positive pole was applied after this, each time to the interior of the uterus, until the 12th of November. On the 20th she returned to state that she felt perfectly well, and had menstruated four days since her last visit; did not feel uncomfortable during it, and is now doing her own housework. She has no limping, and has no trouble from walking. I found the uterus slightly retroflexed, and its cavity of normal length.

Case 8.—Mrs. S., white, æt. 30 years; has had seven children, followed by an induced abortion at two months two years ago. She was very ill after that, and has never recovered from it. She is almost an invalid, having constant dull pains through pelvis that become lancinating after much exertion, requiring her to remain in bed. Menses profuse and agonizing, lasting from five to ten days; complains of neuralgic headaches, loss of appetite, constipation, and cutting pains when voiding urine. An examination revealed the uterus to be large, hard, and in normal position, but surrounded by a thickened vaginal roof. Any movement of uterus causes considerable pain and prostration. The galvanic current was applied as in the other cases, and the nervousness following it was marked—so much so that the application was not extended beyond ten minutes. This occurred July 19 last; after she had rested about one-half an hour, small pledgets of wool were applied against vaginal roof around the cervix. She did not return until August 1, at which time she claimed to feel better, and that her bowels had been regular, without medicines, since her last visit. She was anxious to have the electric current re-applied, as some friend had had a "modern miracle" performed on her in New York by means of this agent. I did not like to repeat the experiment of two weeks ago, but, as the patient was anxious to have it tried again, I repeated it. This time the application was barely perceptible to patient, yet I had to discontinue it after about six minutes on account of faintness and loss of motion in the lower extremities; her face was very pale, and the pulse alarmingly weak. My faradic battery was convenient, and I applied the interrupted current along the spine for a few minutes. It was about an hour before she could walk. I treated this patient until the 2d of October, but did not again employ galvanism on her.

Case 9.—Mrs. A., 42 years old, consulted me, July 2 last,

regarding some pelvic trouble. She had had two children and a miscarriage at three months three years ago. Her trouble dated from the miscarriage. She suffers with pain in back and bearing down, poor appetite and nervousness. Menses profuse, but regular, requiring her to remain in bed four of the six days in every month. Has been under the care of a few specialists for a year. I found the vagina large, and its walls relaxed ; uterus enlarged, low and retroverted. It was almost immovable, very tender to touch, and seemed to be imbedded into the thickened vaginal roof.

Galvanism three times a week for thirty minutes, each application being followed by a gradual pressure against the lower side of the fundus uteri by woolen tamponades. She expressed relief just after the first treatment. This method of treatment was pursued until the 9th of October, when the condition seemed normal. I made twenty-six applications of the galvanic current to this patient during the course of treatment.

I do not think much improvement occurred in Case 3 during treatment by galvanism. She felt very well, but this was, I think, not due to improvement in the condition of the pelvic organs. Many women suffer a great deal from conditions about the same as this woman has, and I think she will sooner or later have a recurrence of pelvic pain and sensitiveness.

The result in Case 5 was very pleasing to me, as I am very glad to save a woman her organs of reproduction whenever it is possible to do so.

If electricity is of much value in this class of cases, I think it has a great field in the future, and should be thoroughly tried before the ovaries and tubes are subjected to the knife.

I do not think much good will come from the use of electricity in large pelvic abscesses or in tumors of a cystic or malignant nature. But I think nearly all other diseases of the female pelvic viscera are amenable to its restorative influence. Even small abscesses and small cysts of these structures are, I believe, curable by the judicious application of this method. In many of the cases that have been reported as cures of ectopic gestation by electricity, the condition of the patient's pelvic organs previous to the discov-

ery of the so-called pregnancy, had not been known. The diagnosis in them was faulty, but the treatment perfectly satisfactory. It is not unfair to assume that some of these cysts were not pregnant cysts, but arose in some other manner. Certainly no failure, even in quite inexperienced hands, of the electric current in such cases has ever, to my knowledge, been published.

Clinical Reports.

Two Cases of Abdominal Section for Salpingitis.

By I. S. STONE, M. D., of Lincoln, Va.,

Member Southern Surgical and Gynæcological Association, of the British Gynæcological Society, of the Medical Examining Board of Virginia, etc.

The following cases are reported to show in the *first*, what may be done surgically with almost absolute safety; and in the *second*, what might have been done by earlier resort to operative measures. The cases are reported in full in order that they may assist others in making an early diagnosis and equally early resort to proper treatment. I am quite sure that a succinct account of the steps of the operation, telling of successful result, cannot promote the early diagnosis of similar cases, however much they add to the fame of the author.

Again, we are in danger of falling into the grave error of supposing that each successful result means only what appears on the surface, *i. e.*, "The patient recovered without a bad symptom," as we so often read. Let it be known, however, that such a rosy picture is not seen behind the scenes. Abdominal surgery involves grave anxiety and mental labor such as few realize who have not seen its best exponents full of the labor it involves.

Case 1st.—Mrs. W., æt. 37, came under my care November 6th, 1888, with the following history: First menstruation at 14 years of age; was quite regular until 18; then she had amenorrhœa and many nervous symptoms, for which she was treated by an eminent gynæcologist of Baltimore. She was benefited by this treatment, and was married at 25.

With each of her six pregnancies she had difficulty. Three of the six resulted in premature deliveries; with the last two children she had post-partum hæmorrhage; and after the last labor she had pelvic peritonitis. The continued suffering had brought about the most painful nervous symptoms, such as hemicrania with photophobia, hyperæsthesia, etc. She had spent for many months the greater part of her time in a dark room. I found her left side (chiefly arm and leg) hyperæsthetic to an intense degree. She was wearing a full length elastic stocking on account of an old phlebitis of the left side which followed the birth of one of her children. In short, this excellent lady had been for six years almost bedridden.

Vaginal examination revealed the usual condition known by the followers of Emmet as "cellulitis," but more happily understood to be salpingitis. The uterus was somewhat fixed in the pelvis, was drawn to the left side, and any attempt to move the organ caused pain. The uterus was not greatly enlarged, nor did I expect it to be; for I have always noticed a greater amount of sub-involution following and attending a lacerated cervix than in the condition under description. I have furthermore observed in cases of sterility from ovarian or tube disease that the uterus is smaller than normal.

The diagnosis was easily enough made in this case, and the prognosis was equally emphatic—that a cure could almost certainly be made by a removal of the diseased appendages. The patient accepted the decision quite calmly, and fully agreed that she was willing to have the operation done to have another chance for life and health.

But let me say that we cannot in America merely suggest the operation, and look upon it as an ultimatum, without grave consideration. Public sentiment in the profession is not yet willing to grant, as it does in England, that these cases of tube disease should always be attacked through an abdominal incision. Thus we find numerous advocates of treating such cases by electricity, by massage (Brandt), or by any expectant policy other than radical treatment.

This patient having three living children, could afford to lay aside any desire for child-bearing. Being a sensible woman, she readily believed that the loss of her ovaries would involve no loss of sexual feeling or danger of estrangement on the part of her husband. (Shame that any

such matter should have consideration when a wife's life and health are at stake.) Finally, this patient had had the best treatment, without regard to expense, for many years, and was still an invalid.

The best proof of the necessity for abdominal section is actual demonstrable disease. The next importance is shown in the history of the case—an indication for Battey's operation.

The two views taken conjointly left no doubt in my mind, and accordingly the operation was done.

On November 24th, with the assistance of Drs. Nichols, Luck and Keen, I removed both ovaries and tubes. The left tube was as large as an index finger, was closed at the ovarian extremity, and had two strictures with mucous membrane caught between these, forming separate closed sacs. The right tube was likewise involved, but not to the same extent. The left tube was very adherent; the right only slightly so. The very free oozing from the left side necessitated antiseptic flushing out the peritoneum and the wearing of a drainage-tube for six days after the operation.

The temperature was strangely enough 102° F. two hours after operation, but immediately fell to the usual healthy limit observed in ordinary cases of similar operations, and exceeded 100° only once afterward, and then it remained but a very short time. The patient in 24 hours was allowed liquid food, and soon was taking nourishment abundantly, and in two weeks had gained visibly in flesh and strength. Beef peptonoids and pancreatinized milk were freely given, and were never known to cause any trouble. A slight bronchitis was the only annoyance. In a month the patient was well in every respect from the operation, was taking exercise, and was full of delight in experiencing so much less pain and distress.

She desired to remain under my care and take massage and electricity until well. Accordingly she remained at the Sanitarium for two months longer, and was soon going about at will. Before her departure for home she walked four miles without fatigue and ran up and down stairs; could run a sewing-machine at will, and, in short, felt entirely well, not even having had a severe attack of hemicrania for two months.

A slight metrotaxis has been the only sign of an effort at menstruation since the operation.*

* A letter from this patient, received just as this article is being mailed, tells of still greater improvement, and is full of the gratitude usually felt by such unfortunates after being cured.—*I. S. S.*

Case 2d.—The next case is equally typical and more instructive, although not followed by recovery.

In 1884, Miss B. was brought under my care for retroflexion of the uterus, dysmenorrhœa, anæmia, etc. Treatment benefited her for a time, and she was married soon after, which caused immediate aggravation of all her symptoms. She was treated for retroflexion, and soon after for "cellulitis." There was, without doubt, a tubal abscess—*i. e.*, pyo-salpynx—at the time, which was, unfortunately, treated as "cellulitis." Wishing to have the best advice in consultation, I took the patient to Baltimore to an eminent surgeon and gynæcologist, who disagreed with me entirely as to the need of treatment, and advised that she should live without her husband, and thought she would soon be well, etc. I was confident that pus was being discharged from a pelvic abscess, but could not prove it, save by the discharge of pus from the uterus in larger quantities than I had ever seen before. This discharge of pus would occasionally appear almost in gushes. I confess that I was entirely ignorant that a tube could cause such a set of symptoms, but I think my ignorance excusable at that time.

A temporary improvement followed the carrying out of the advice, and the patient was able to remove to a distant Western State, where she remained an invalid until August, 1888, when she was again brought to see me.

She had become emaciated and aged in appearance during the four years of absence; indeed, she looked a wreck. She was brought under my immediate notice in November, and I found the existence of the same condition as four years before, wtth this difference: that there was a history of localized peritonitis. A better understanding of the pathology of the case enabled me to clearly recognize a large tube on the left side, the uterus small, and drawn to left side; also an indistinct fluctuation around, or possibly in, the tube. I gave as my unqualified opinion that unless the tube was removed she would always be an invalid, and might at any time die of peritonitis from rupture thereof. Her friends very slowly yielded assent to my opinion, and only consented to an operation after they fully realized that she might die at any time, and *must* in a few months yield to the disease without an operation.

My prognosis was fearfully realized at the time of the next succeeding menstruation, two weeks later. She had a sharp attack of peritonitis, which nearly cost her her life.

Soon after this attack, she was brought to my Sanitorium for treatment, and accordingly, on December, 1888, abdominal section was done, Drs. Nichols and Keen assisting, Drs. Taylor and Little also present. There was some difficulty in opening the peritoneum, which was as thick as the integument on her abdomen. I have assisted at at least a dozen laparotomies, and have witnessed perhaps one hundred during the past year, without encountering such a fearfully thickened peritoneum as this one. However, this was but a prelude to the most difficult undertaking of my life. The pelvic cavity was filled with bloody serum; the omentum and then the intestines were glued over the adhesive tube and ovary, so that it required at least one hour of hard labor to recognize the state of affairs—to separate and tie adhesions, and finally, to gouge out the ovary and tube from a bed where long-standing disease had fixed them.

Had I not seen men of acknowledged ability require two hours or more to complete a similar operation, I would have been greatly embarrassed at the delay. Of course the tube had burst and caused the recent peritonitis, and moreover had been teasing and exciting septic disease in the peritoneum for years past.

The removal of the right ovary and tube was not more than ordinarily difficult; and after washing out the peritoneal cavity with abundant water, the wound was closed in the usual manner, using a glass tube.

In the first case (just now reported) the glass tube was absolutely required for bleeding. In this second case, before the abdomen was closed, all oozing had ceased, and there was but little red serum, although the extensively torn adhesions would appear to necessitate a bloody serous discharge. This case did well for three days. Great relief followed the operation, and the excellent pulse and satisfactory temperature indicated recovery. On the fourth day the first appearance of exhaustion began; there was a slight cyanosis, and the temperature ran up once to 102°, but soon fell below 100°. Symptoms of intestinal obstruction began to show themselves.

Yielding to the popular rage, I gave salines to overcome this state of affairs, but without avail They caused vomiting, which, in turn, added to the collapse. On the fifth day the wound was opened, and the abdominal and pelvic cavities well irrigated, but without advantage, for the pa-

tient was already weak, and lived but two hours over five days after operation.

I should have mentioned the removal of the glass tube on the third day after the operation. The oozing was so slight that the glass tube was taken out and a rubber one inserted. I think this a mistake in this case, for when the abdomen was re-opened, considerable fluid was found in the pelvic cavity, which the tube should have discharged.

Probably the most important error was in failing to appreciate the fact that a peritoneum so much thickened by long standing disease could not remove or dispose of fluids, normal or abnormal, as readily as one ordinarily healthy

Again, as before stated, the use of salines was distinctly prejudicial. Dr. Bantock had only one case of obstruction in his series of ninety-three cases without a death. I should have followed his teaching in this case, as he is opposed to purgation if the patient really has peritonitis.

Having stated this case rather at length, I would refer to the moral inference to be deduced therefrom.

Four years ago this patient would have been almost certainly cured, if surgeons had then understood what they do now of salpingitis. It is possible that had the operation been done one month earlier, the chances would have been in her favor.

I am aware of the great amount of literature extant upon this topic from many able writers and surgeons, and know it appears unnecessary to add these cases to the already great number reported. But judging from my experience, and that of physicians of my acquaintance, these tube cases are frequently encountered. It goes without saying, that they are frequently not recognized, and consequently may not have suitable treatment. My apology for this report, therefore, is this: I wish to urge upon all physicians in general practice to early recognize these cases of salpingitis, that they may be treated appropriately, and that it may soon be said that our home statistics are equally as creditable as those of foreign countries.

Case of Placenta Prævia Centralis, with Complete Adhesion of Placenta.

By N. H. NEBLETT, M. D.,

Lunenburg C. H., Va.

On January 13, 1889, I was called to see Mrs. W., aged 30 years, multipara. She was thought to be threatened with a miscarriage. On arriving at her house, she told me she had some hæmorrhage about a month previous; it came on suddenly and without pain, lasting four or five days. This was about the time of the commencement of the sixth month of gestation. On examination, the os was found soft and dilatable; and the finger, on reaching the internal os, encountered a thick, boggy mass, which felt as if it were corded. As pregnancy had not reached the seventh month, it was thought advisable to try and control hæmorrhage until the child would be at a viable age. Rest in bed, with the feet elevated six or seven inches, was enjoined. Opium was given to keep her quiet; this did not check the flow at all, and without farther delay I at once proceeded to plug the vagina with cotton tampons, covered with tannin. Hæmorrhage was at once arrested. The vagina was kept tightly packed with tampons for four days, fresh ones being inserted each day to prevent them from becoming offensive. No hæmorrhage occurred in two days after removing the tampons, but on the third day it came on again, and was very profuse, so much so that the bed was saturated with blood. Tampons were again placed *in situ*, and ergot was given in large and repeated doses to set up uterine contractions, as the only hope for the patient was to bring on uterine contraction so that the flooding would cease. After waiting a reasonable time, and ergot having failed to bring on uterine action, I determined that there was but one thing to do—rupture the membrane, and if contractions did not come on then, to turn and deliver by the feet.

On introducing the whole hand into the vagina—which was easily done, owing to laxity of the parts—it was found that the placenta completely occluded the os; the finger could no where feel anything but this boggy mass; there was about an inch on the left side, where the placenta had been separated from the wall of the uterus, and it was the source from which the hæmorrhage came. I tried to pass a quill, guided by my finger, through the placenta, but

could not succeed. With three fingers in the os, which yielded readily, I pushed them through the placenta. Water at once rushed out, pains came on, and hæmorrhage at once ceased. Child was born in one hour; lived about twelve hours; male. After waiting some fifteen minutes for the after-birth to come—for the pains had steadily kept up after the birth of the child—and it did not, I feared trouble, as there was still some hæmorrhage. The hand was again introduced, and the placenta was found adherent on all sides of the womb, the child being born nearly through the centre.

At this juncture, assisted by Dr. Hurt, we managed to peal off nearly all of the placenta. But the patient was sinking fast, and had become almost pulseless; hence we had to let nature deal with what was left. Hypodermic injections of brandy brought the pulse out. She continued steadily to improve. The womb was syringed out night and morning with carbolized water—pieces of membranes and placenta coming away each time. All discharges stopped about the fourteenth day. On the eighteenth day she was taken with severe pain over the region of the womb, preceded by a chill. The discharges recurred again, and were very offensive. Opium was given to quiet the pain. Temperature 103°; pulse 120 to 130, quick and feeble; vagina very hot. Carbolized injections were again used; and although the water used was hot to the hand, she complained of its being cold. After using the injections, and taking one-drop doses of tincture aconite root every hour, the pulse commenced to fall, and the temperature was down to normal in ten hours. Her improvement has been uninterrupted, and she is now up and walking about. She was put upon iron and quinine soon after delivery.

This report is written from notes in my Obstetrical Record. I publish this case to show the inefficiency of temporizing by the use of astringents, etc., in the rural districts, where miles intervene between the patient and her physician. It is true that tamponing will, as a general thing, control the hæmorrhage as long as kept up, but after their removal, there is no certainty as to when hæmorrhage will occur. These means are no doubt available in hospitals, where the physician is close by, and can render the necessary assistance.

A Case of Bright's Disease Relieved—probably Cured—with Nitro-Glycerin.

By H. EMMET WOOTTEN, M. D.,
KEMPNER, TEXAS.

I was called on the 15th of December, 1888, to see Mrs. Alice Hooper, aged 55, who had been well up to one year ago, when she noticed that the quantity of urine passed was on some days more than usual. This condition continued, and was attended with some pain in the back, until her husband noticed that her face under the eyes was swollen. This was soon followed by swelling of the feet and difficulty of breathing; and when her family physician called, he found evidence of œdema of the lungs. The urine was loaded with albumen; had a specific gravity of 1012, and contained casts of all varieties in very great abundance. Free action of elaterium was secured soon after my arrival. Nitro-glycerin was then administered, one drop of a one per cent. solution, three times a day. At the end of three days no trace of albumen existed in the urine; its specific gravity was 1017, and the number of casts was exceedingly small.

I believe the effect of the remedy, as a rule, is produced at once. It seemed to be especially serviceable in this case, and she is now attending to her household duties, apparently in as good health as she ever enjoyed. Up to this date (April 4th, 1889) her husband informs me she is well, and hears no complaint from her. I will state that her father, James Kincaid, died in 1884 with Bright's disease.

I would like for some of the brethren to give the remedy a trial in this disease, and report results.

Correspondence.

Typho-Malarial Fever

Mr. Editor—Dr. S. K. Jackson, in the *Transactions of the Medical Society of Virginia*, session 1888, in Norfolk, has differentiated the two diseases, fermentative and putrefactive, in such a way that his conclusions must be accepted as those coming from one who has "eaten the pudding."

There is one exception, perhaps, which, as yet, I am not prepared to agree to unhesitatingly, viz., his modification of opinion which tends him to the conclusion that there is such a disease *sui generis* as typho-malarial fever, by reason of the seeming "good fit" of ammonia-salicylate "in that form which seems to be a compound of the two classes."

If we have reason to admit that there is such a disease, would it not jar, if not fracture, his differentiation, for the chemical reason that no atoms can have *simultaneously like and unlike* forms and arrangements?

Matter (ultimate), doubtless, has healthful forms and arrangements; also has definite arrangements in diseases. The doctor will admit that the same number and kind of atoms, rearranged or disarranged, will make different substances, and we are induced to think that nature's seemingly small "armament" C H O N and combinations proves her power in conservation and correlation and economy.

Now, ultimate matter in health and disease, cannot, it seems to me, hybrenize in form, but must assume positively either the one or the other. If we carry the idea further and say that so many atoms may be healthful and so many diseased proper, then we almost know that one or the other must dominate ere long. They cannot possibly remain stationary; it is against all natural law.

We owe our thanks to Dr. Jackson for portraying the two diseases so differentially, and explaining so clearly why it is that nature demands the several compounds which have been given, doubtless, by many of us ignorantly, so far as knowing the chemistry of the procedure.

WM. S. STOAKLEY, M. D.

Clifton, Va., March 27, 1889.

Bromidia.

Dr. Robert Smith, Durham County Asylum, Sedgefield, Ferryhill, England, May 25, 1886, says: "I have tried your Bromidia, and found it so very satisfactory that I have used your preparation constantly ever since. I think I need say nothing more in its favor."

Proceedings of Societies, Boards, etc.

MEDICAL EXAMINING BOARD OF VIRGINIA.

The Medical Examining Board of Virginia convened in general session in the Hall of the House of Delegates of Virginia, Richmond, Va., Tuesday, April 9th, at 8 P. M., and was in session two days.

The following named members were present, and took part in the proceedings:

Drs. Hugh T. Nelson, of Charlottesville, *President;* C. C. Conway, of Rapidan, *Vice-President;* L. Ashton, of Falmouth, I. S. Stone, of Lincoln, O. B. Finney, of Onancock, Herbert M. Nash, of Norfolk, R. A. Lewis, of Richmond, B. L. Winston, of Hanover C. H., W. J. Harris, of Blackstone, Paulus A. Irving, of Farmville, W. L. Robinson, of Danville, A. Trent Clarke, of South Boston, Leigh Buckner, of Roanoke, J. H. Neff, of Harrisonburg, Geo. A. Taber, of Richmond, F. Webster, of Norfolk, and Hugh M. Taylor, of Richmond, *Secretary and Treasurer.*

Chief Feature of Amended Law.

The principal feature of the recently amended law relating to the Medical Examining Board of Virginia is, that hereafter all candidates for examination for license to practice medicine, surgery, etc., in the State of Virginia, shall appear before the Board *in regular session*, instead of allowing any candidates to appear before three individual members of the Board, at their respective homes, as formerly. Provision, however, is made for cases of emergency, which claim of *emergency* must be decided by the President of the Board. Should the claim of emergency be sustained by the President, then he shall appoint three members of the Board to assemble at a given time and place, when and where they shall organize themselves into a committee, and *in session* examine the candidate or candidates for license, and pass upon the examination paper or papers as if the Board were in full regular session.

As there are many interested parties inside and outside of Virginia who are yet uninformed, or else misunderstand the effect of the Virginia law regulating the practice of medicine in the State, at the risk of repeating matters we have published in former issues of the *Medical Monthly*, we will

give a *resumé* of the requirements, etc., as set forth in the present amended statute.

The Medical Examining Board of Virginia went into effect January 1, 1885. Any one having had a license to practice medicine or surgery anywhere in the State of Virginia prior to that date is exempt from the operation of this law. But any other person who, since that date, has undertaken to practice medicine, surgery, etc., for compensation, without first having received a duly signed certificate of having passed a satisfactory examination before the Medical Examining Board of Virginia, and having his name "registered in the clerk's office of the county or corporation court for the county or corporation in which he shall reside," is practicing illegally; and on conviction before any of the courts of the Commonwealth, shall be fined "not less than $50 nor more than $500 for each offence, and shall be debarred from receiving any compensation for services rendered as such physician or surgeon."

Plan of Examination.

Under the by-laws approved at the last meeting of the Board, "the applicant is required to answer at least *three-fourths* of the questions satisfactorily, and he is to be rejected if he fails to answer satisfactorily *thirty-three and one-third* per cent. of the questions on any one Section or sub-division of the whole examination. He is also required to sign his papers with a number furnished him by the Secretary, who shall record the number after the applicant's name on his registered list to be kept for the purpose, and only the President and Secretary shall be allowed to examine the aggregate sheet during the examination."

In all examinations before the Board, if not distinctly so stated, it is always implied and understood that each party undergoing examination pledges his word of honor, without mental reservation, or evasion in any manner whatsoever, that during such examination he will neither give to a fellow candidate, nor receive from him or from any other improper source, any information relating to the subject immediately under consideration, unless it be with the knowledge and consent of the Examining Committee.

The time allotted to make answers to questions in each Section is three hours.

The Chairmen of the various Sections reported the *Examination Questions* prepared by the respective Committees.

After a free discussion and some amendments, they were adopted, and are as follows:

Examinations April 10th and 11th, 1889.

I.—Section on Chemistry.

Members:—Drs. R. A. Lewis, of Richmond (city), *Chairman;* Hugh T. Nelson, of Charlottesville, Jesse H. Peek, of Hampton, and Smelt W. Dickinson, of Marion.

Ques. 1. What is chemical affinity? Give an example of the results of its action, and tell how the force differs from adhesion.

Ques. 2. Name the gaseous elements. Name the monads or metals of the alkalies; also the diads or the metals of the alkaline earths; and the most important metals.

Ques. 3. Give a complete history of oxygen under the following heads: 1, Its occurrence in nature; 2, methods of obtaining it pure; 3, chemical and physical properties; 4, state what important changes are produced in the blood by its contact therewith in the lungs, and in the tissues of living animals.

Ques. 4. Name the halogens; give their sources and mode of preparation of each, their properties and uses, chemical and therapeutic; and explain how haloid salts differ from true salts.

Ques. 5. To what class of bodies does starch belong? Under the influence of what agent is it converted into dextrose in the animal economy? Give the chemical difference between starch and dextrose, and what is the action of the agent in producing the change?

Ques. 6. What are the haloid ethers? Mention some of them, and tell how they are formed. Name some of the monatomic alcohols, and give their composition.

II.—Section on Anatomy.

Members:—Drs. Hugh M. Taylor, of Richmond (city), *Chairman;* Wm. P. McGuire, of Winchester, Paulus A. Irving, of Farmville, and R. D. Huffard, of Chatham Hill.

Ques. 1. Describe the peculiar ribs.

Ques. 2. Describe the ossicles of the tympanum.

Ques. 3. Describe the elbow-joint.

Ques. 4. Give general and descriptive anatomy of the diaphragm.

Ques. 5. Describe the anatomical peculiarities of the fœtal circulation.

Ques. 6. Describe the spinal ganglia of the sympathetic system, and the number of ganglia of which each part is composed.

Ques. 7. Describe the medullary and pelvic portions of the kidney.

Ques. 8. Describe the tunics of the eye.

III.—Section on (I) Hygiene and (II) Medical Jurisprudence.

Members:—Drs. James Parrish, of Portsmouth, *Chairman;* S. W. Carmichael, of Fredericksburg, Jrmes W. Tankard, of Burgess Store. B. L. Winston, of Hanover C. H., and G L. Stone (Homœop.), of Richmond (city).

Ques. 1. Define the difference between an antiseptic and a disinfectant; name some of the principal antiseptics and their mode of action, and the strength in which they should be used.

Ques. 2. Describe how sewers should be constructed so as to prevent the escape of sewer gas, and the contamination of buildings.

Ques. 3 Give the chief modes of heating buildings, and the advantages and disadvantages of each.

Ques. 4. Describe how typhoid, typhus and scarlet fevers should be managed so as to keep the disease from spreading.

Ques. 5. Give the limits of natural period of gestation; also signs of recent and remote delivery.

Ques. 6. Describe the external and internal appearances of a body recently drowned, and state how they differ from the appearances of a body when life was extinct before being in the water.

IV.—Section on Physiology.

Members:—Drs. Wm. L. Robinson, of Danville, *Chairman;* A. Trent Clarke, of South Boston, I. S. Stone, of Lincoln, and Leigh Buckner, of Roanoke.

Ques. 1. Give kinds and composition of muscular tissue, with microscopic differences.

Ques. 2. What are reflex movements, and what are the functions of vaso-motor nerves?

Ques. 3. By what agencies are the movements of lymph and chyle affected, and what changes occur while being circulated through the mesenteric system?

Ques. 4. Give phenomena of asphyxia, with effects upon the nervous and circulatory system, with changes in the blood, and the causes of death.

Ques. 5. What is meant by blood pressure, and how estimated?

Ques. 6. Give physiology of respiration.

Ques. 7. Trace the complete circuit of the blood, beginning at the right heart, and mention the changes it undergoes in its course.

Ques. 8. Give the physiology of normal vision.

V.—Section on Materia Medica and Therapeutics.

Members:—Drs. Robert J. Preston, of Marion, *Chairman;* C. C. Conway, of Rapidan, Hugh Stockdell, of Petersburg, J. H. Neff, of Harrisonburg, and M. A. Douglas (Homœop.), of Danville.

Ques. 1. Name the principal antispasmodics, with the dose of each agent.

Ques. 2. Name the origin of belladonna, elaterium, assafœtida, aconite, veratrum viride.

Ques. 3. Name the different classes of cathartics, and give example of each, and write a formula for a laxative.

Ques. 4. Give medicinal uses of quinine, the doses for each of these uses, and the indications and time of administration.

Ques. 5. Name chief hypnotics, and give doses of each.

Ques. 6. Give the therapeutic uses of hot water, external and internal.

Ques. 7. Name the chief vegetable bitters, their medicinal uses and doses.

Ques. 8. Describe the therapeutic action of revulsives.

Ques. 9. Give the antidotes, or combative treatment for poisoning by arsenic, corrosive sublimate, belladonna, strychnia, and aconite.

Ques. 10. Give various therapeutic uses of arsenic.

Ques. 11. Give dose and uses of carbonate of ammonia, digitalis, and nux vomica.

Ques. 12. Give doses of dilute phosphoric, nitric, carbolic, sulphuric, nitro-muriatic, and dilute hydrocyanic acids.

VI.—Section on Obstetrics and Gynæcology.

Members:—Drs. Alex. Harris, of Jeffersonton, *Chairman;* Z. J. Walker, of Brownsburg, H. M. Nash, of Norfolk, O. B. Finney, of Onancock, and George A. Taylor (Homœop.), of Richmond.

Ques. 1. Name and give the distribution of the blood vessels supplying the female pelvic organs.

Ques. 2. Give the diagnosis and management of pelvic presentations.

Ques. 3. What means should be employed to prevent septic infection before, during and after labor?

Ques. 4. Give causes of ante- and post-partum hæmorrhage.

Ques. 5. What is the difference between spontaneous version and spontaneous evolution?

Ques. 6. Give the earliest symptoms of acute albuminuria.

Ques. 7. Give the management of puerperal mastitis.

Ques. 8. Name the structures most frequently lacerated during labor, giving the methods of treatment.

Ques. 9. Give the pathology of uterine hydatids.

Ques. 10. Give pathology, symptoms and treatment of pelvic abscess.

Ques. 11. Give the causes and treatment of menorrhagia.

Ques. 12. Give diagnosis and treatment of puerperal peritonitis.

VII.—Section on Practice of Medicine.

Members:—Drs. Rawley W. Martin, of Chatham, *Chairman;* Bedford Brown, of Alexandria, Henry M. Patterson, of Staunton, W. J. Harris, of Blackstone, and W. P. Jones (Homœop.), of Petersburg.

Ques. 1. Causes of { 1. Gastritis. 2. Epilepsy. 3. Anæmia. 4. Urticaria.

Ques. 2. Pathology of { 1. Cerebral apoplexy. 2. Endocarditis. 3. Typhoid fever. 4. Chronic dysentery.

Ques. 3. Symptoms of { 1. Variola. 2. Pneumonia (Croupous). 3. Chorea. 4. Nephritis (acute).

Ques. 4. Diagnosis of { 1. Remittent fever. 2. Intercostal neuralgia. 3. Uræmic convulsions. 4. Scarlatina.

Ques. 5. Treatment of { 1. Acute rheumatism. 2. Intermittent fever. 3. Cholera infantum. 4. Roseola.

VIII.—Section on Surgery.

Members:—Drs. H. Grey Latham, of Lynchburg, *Chairman;* T. B. Greer, of Rocky Mount, G. D. Meriwether, of

Pedlar Mills, L. Ashton, of Falmouth, and F. Webster (Homœop.), of Norfolk.

Ques. 1. Causes of { 1. Intestinal obstruction (acute). 2. Iritis. 3. Synovitis. 4. Ununited fracture.

Ques. 2. Symptoms of { 1. Concussion of brain. 2. Dislocation of femur on dorsam of ilium. 3. Glaucoma (acute). 4. Potts' disease—early symptoms.

Ques. 3. Pathology of { 1. First stage of inflammation. 2. Gangrene. 3. Aneurism. 4. Syphilis (secondary stage).

Ques. 4. Diagnosis of { 1. Of compression from concussion. 2. Dislocation of femur from intra-capsular fracture. 3. Septicæmia. 4. Typhlitis.

Ques. 5. Treatment of { 1. Obstruction of bowels (acute). 2. Potts' fracture. 3. Mammary abscess. 4. Describe methods of amputating through the lower third of thigh.

PRESIDENT'S ADDRESS.

CHARLOTTESVILLE, VA., April 9, 1889.

Gentlemen of the Medical Examining Board of Virginia:

Since it has been your pleasure to confer upon me the honor which created me the Executive Officer of this Board, it becomes a duty to report to you the work already done since the present Board became endowed with function—an event which took place on the first day of January of the current year.

In the first place, I have to thank you for the honor conferred—deeming it no less an honor in that you first elected another gentleman, who, unfortunately, saw fit to decline. And in saying *unfortunately*, the word is not merely used as *in formula*, but after having been well weighed; for I am satisfied that the ability to work is not the only qualification which should be possessed by your chief officer, but that he should possess fully the confidence and esteem of the entire profession of the State, and an experience begotten of years of association with them.

But to business. Scarcely had the management of the

Board been placed in my hands, when applications for Special Examinations began to come in—in several instances backed up by petitions from members of the Board. Drs. D. L. Shaver, B. W. Henry, Geo. E. Meredith, Breckinbridge Catlett, W. B. Pullen, H. W. Benjamin, and Mr. W. C. Fulkerson are the parties who have been refused examinations, and these applications were refused on the ground that granting any one of them would of necessity weaken the powers of the Board for good, and virtually defeat the object for which the Board contended so vigorously and successfully before the recent session of the General Assembly.

In the case of Mr. Fulkerson, however, the application was referred to the Executive Committee before final action was taken, and even then decision was reserved; but the father of Mr. Fulkerson did not push the matter, after he had been written to disadvising that his son—only a first course student—be examined.

Early in February, I sent a circular-letter to each member of the Board, requesting them to *qualify* properly in their respective courts, and immediately to notify the Secretary thereof. I then formulated the new committees, adhering as closely as possible to those in operation under the former organization, supplying the places of Drs. W. W. Douglas, C. R. Cullen, Jno. H. Claiborne, Oscar Wiley and T. J. Moore, by the names of Drs. James W. Tankard, B. L. Winston, Paulus Irving, Leigh Buckner, and L. Ashton. So that the Committees are now constituted as below:

1. *Chemistry*—Drs. R. A. Lewis (Chairman), Nelson, Peek and Dickinson.

2. *Anatomy*—Drs. Taylor (Chairman), McGuire, Irving and Huffard.

3. *Hygiene and Medical Jurisprudence*—Drs. Parrish (Chairman), Carmichael, Finney, Tankard, and G. L. Stone (H).

4. *Physiology*—Drs. Robinson (Chairman), Buckner, Clarke and I. S. Stone.

5. *Materia Medica and Therapeutics*—Drs. Preston (Chairman), Conway, Stockdell, Neff and M. A. Douglas (H).

6. *Obstetrics and Gynæcology*—Drs. Alex. Harris (Chairman), Walker, Nash, Taber (H) and Winston.

7. *Practice*—Drs. Martin (Chairman), Brown, Patterson, W. J. Harris and Jones (H).

8. *Surgery*—Drs. Latham (Chairman), Greer, Meriwether, Ashton and Webster (H).

Legislative Committee—Drs. Robinson (Chairman), Walker and Taylor.

Executive Committee—Drs. Preston (Chairman), Robinson, Nash, Nelson and Taylor (last two *ex officio*.

Circulars were sent to thirty-two of the most prominent medical schools of this country, asking information in regard to the time of closing their respective sessions; and, nearly all of them having replied, to-day—April 9, 1889—was fixed upon as the time best suited for our meeting, and every member of the Board was at once notified from the Secretary's office.

As unpleasant as it is to me, it is, I believe, my duty to call your attention to attacks which have been made upon this Board by several medical journals of the country. Two journals edited in the city of Philadelphia—the *Medical Times* and the *Medical Register;* also the *Journal of National Association of Railway Surgeons*, have denounced this Board in terms which are unbecoming; and it is deemed best for the interest of the Board, the medical schools of this State, and for the profession at large, to place on record a statement of the facts in the cases upon which these charges have been based.

The *Medical Times* is edited by a professor in the *Medico-Chirurgical College of Philadelphia.* In a tabular statement of the workings of this Board, published in pamphlet form, in April, 1888, this college was accredited with *Three "Applicants Applying for License,"* and *Three "Applicants Rejected;"* also, *Two Rejected Applicants Applying a Second Time*, and *Two Applicants a Second Time Rejected.* Now, it is admitted that confusion and incorrect ideas were very easily obtained from this table; but, at the time the statistics were made up it impressed us very fully with the view that the *Number of Individuals* from each institution was to be obtained by subtracting from the total number of applicants the sum of *"Second Applicants"* and *"Incomplete Examinations."* For instance, in the table referred to, the *Medical College of Virginia* is charged with *Fifty-four "Applicants Applying for License,"* and yet this does not represent the number of *Individuals* from the institution. The number of individuals, on the contrary, is only *fifty-one*, obtained by subtracting the number (three) of *"Rejected Applicants Applying a Second Time"* from the number in the column of *Totals.*

Now, the *Times* charges that they had frequently called the attention of the Board to this error; and yet, not one single member of this Board had ever received any notice in any shape or form whatever, that the *Medico-Chirurgical*

College was aggrieved by the statistics of this Board. On the contrary, in the summer of 1888, I received a letter from Dr. E. E. Montgomery, Dean of the Faculty of the *Medico-Chirurgical College*, inquiring who were the *three* applicants from that institution reported *"Rejected"* by the Board. I at once replied, stating the case fully, and explaining how the statistics had been prepared; and, in reply, received a most courteous letter from Dr. Montgomery, regretting that so inferior a man had come up before the Board, and promising that the next time any of their graduates were before us they would be better prepared. This was prior to July 1, 1888, and no knowledge that this institution deemed itself wronged ever came to us till eight months afterwards, in the shape of the editorial referred to. Had it ever come to the notice of the Secretary—which position I filled up to December 31st last—I would have cheerfully, and, if necessary, at my own expense, done all in my power to correct any apparent injury done this institution. In fact, I shall request our Secretary, Dr. Taylor, in publishing the report of our present session, to arrange a table which shall be satisfactory to all parties; and it is hoped that this part of this report will be accepted as an apology by the officers of the *Medico-Chirurgical College* for any apparent injustice done them or their school.

It is very plain, however, that the *Times* has made a misstatement when it alleges that the manner of recording the *Medico-Chirurgical College* differs in any degree from that employed in the case of other institutions.

The *Medical Register*, edited by Dr. John V. Shoemaker, also a professor in the *Medico-Chirurgical College*, in its two issues, February 13th and 27th of the current year, has respectively *five* and *three* articles condemning the Medical Examining Board of Virginia. Six of these eight articles are mainly repetitions of each other, basing a great amount of abuse upon the Board, taking for a text in each instance an article published in the December number of the *Southern Clinic*, entitled *"Altering the Returns."* In the article referred to, the *Southern Clinic* belabors the Board for licensing two *colored* physicians at its session in Norfolk, and also attacks the President of the Board for incompetence and malfeasance in office.

Most of you are aware that at the session of this Board, held as stated, in Norfolk in October last, five persons applied for license—three white and two colored. The three white applicants passed satisfactorily, and the Board, after

discussing the matter in all its phases, determined to license the two negroes for reasons fully set forth in the minutes of that meeting, which minutes are fully recorded in the Minute Book, and need not be repeated here. The members of the Board who have expressed dissatisfaction with that action should have remained until the close of the session and entered their official protest against it; for it has always been the habit of the Board since its organization to re-canvass the reports of any committees, or to refer the papers of applicants back to these committees for revision in any case in which it deemed such action advisable—a function, gentlemen, which I hope you will always perform when circumstances demand it.

The attack on the late President of the Board, Dr. H. Grey Latham, was based on mistaken premises, and in his absence I wish to correct the error. Dr. Latham was deceived by an applicant, and under the impression that the said applicant had really been a legalized practitioner of medicine in the State of Virginia prior to the passage of the medical law, but a practitioner under peculiar circumstances, did request the members of the Board resident in Richmond to go through the form of an examination to save future trouble. As soon, however, as Dr. Latham was correctly informed, he withdrew his request; and the informant of the editor of the *Clinic* should have given all the circumstances of the case.

The remaining two of the eight articles in the *Register* were written, one by Prof. Keyser, of the *Medico-Chirurgical College*, complaining bitterly of the action of the Board; the other by a Dr. Detwiler (an applicant rejected by the Board in session, and subsequently licensed by the former system of individual examinations), charging that the Board was run in the interests of the medical schools of Virginia, and to the attempted injury of schools outside the State. Of course the letter is much quoted in the other articles referred to. This charge is too trivial to notice, and is passed by in silence.

There appears in the same issue of the *Register* containing the five articles against this Board, and placed as nearly in the middle of them as could be—three on the one side and two on the other—an article intended to wield great influence in defeating the *Pennsylvania Medical Bill*, then pending before the Legislature of that State. This, gentlemen, explains the whole story. The Medical Examining Board of Virginia is defamed in order to prevent the passage of a

bill for promoting higher medical education in Pennsylvania.

It seems to me that the charges referred to demand that you (as a body) take official action to prevent the further spread of malicious libel.

I herewith present for your consideration a petition of *twenty-three* students of the Medical Department of the University of Virginia, forwarded by the Chairman of the Faculty of that Institution, urging that you make arrangements to have an examination for their benefit at Charlottesville at some time between the 1st and 10th of July next. In regard to this petition, I would suggest the advisability of holding a session of this Board at Charlottesville about the 10th of July next.

Some of the members of the Board come to its meetings and only remain during part of its session, pleading urgent business at home as their excuse for leaving. They may or may not have gotten through with the work in their respective departments. At the close of each session there is always important matters to be decided, and a discussion and action by a full session is all important. Complaint has been found with some of the acts of the Board under such circumstances—1, by members of the Board who absented themselves; 2, by members of the profession who think the policy of the Board, shaped at such a time, should have the advice and approval of as many members of the Board as possible. 3. The applicants before the Board claim, in such cases, that they are entitled to have their future decided by the whole Board, and not a bare quorum, as has sometimes been the case. We appreciate the justness of such claims, and urge the members who have not done so in the past to make the necessary sacrifice, and remain until the close of the session. Apart from the points alluded to in regard to this matter, it is not fair to the other members of the Board—those who do remain throughout its session—to impose upon them the no light work and responsibility. Not one member is present who does not make a sacrifice. It is just as hard upon one as another, and the obligations are as binding upon one as another.

Let us each and all work for the true object for which this Board was created—the advancement of medical education in America; at the same time bearing in mind that the highest eminence is never attained at a single leap.

With great respect and esteem,

HUGH T. NELSON, M. D.

INSTITUTIONS REPRESENTED BY THE APPLICANTS

BEFORE THE

MEDICAL EXAMINING BOARD OF VIRGINIA,

FROM THE ORGANIZATION OF THE BOARD,

January 1st, 1885, to April 15th, 1889.

	Total number of applicants for examination from each institution.	Total number awarded certificate on first examination.	Total number rejected on first examination	Rejected applicants appearing for exam'tn 2d time.	Certificates awarded on 2d examination.	Rejected 2nd time.	Rejected applicants appearing for exam'tn 3d time.	Rejected 3rd time.	Incomplete examinations, withdrawals or otherwise.
Medical College of Virginia	64	54	8	3	3	..	.....	....	2
University of Virginia—Medical Department	38	37	1	....	....	....	.....	....	....
College of Physicians and Surgeons, Baltimore, Md	39	27	11	6	4	2	.....	...	1
University of Maryland—Medical Department, Baltimore	45	32	13	3	2	1	1	1	....
Baltimore Medical College, Maryland	3	....	2	.. ..	.....	....	.....	....	1
Jefferson Medical College, Philadelphia, Penn	15	10	5	2	2	....	....	.....	.....
University of Pennsylvania, Medical Department, Philadelphia	2	2	.....	...	....	.....	....	.....	....
Medico Chirurgical College, Philadelphia, Penn	1	....	1	1	....	1	1	1	....
Hahnemann Homœopathic Medical College, Philadelphia, Penn.	2	2	....	.....	....	....	....	....	.....
Bellevue Hospital Medical College, New York	6	5	1	1	1	.....	.....	.....	....
University of the City of New York—Medical Department	9	7	2	1	.. .	1	....	....	....
College of Physicians and Surgeons, New York	3	3	....	...	....	.....	....	.....	.....
Geneva Medical College, New York	1	1	....	....	....	...	.....	.....	.....
Howard University, Med. Department, Washington D.C. (colored)	9	2	7	4	....	4	....	.....	....
University of Georgetown, D. C., Medical Department	1	1	....	...	.....	....	....	....	.....
Louisville Medical College, Kentucky	3	1	2	....	.....	.....	.....	....	....
Hospital Medical College, Louisville, Ky	3	3	....	.....	....	....	...	.....	.....
Kentucky School of Medicine, Louisville	2	2	....	..	.....	...	.....	...	....
University of Louisville, Ky, Medical Department	2	1	1	... .	.....	....	.....	....	.....
University of Tennessee—Medical Department, Nashville	1	1	.....	...	....	...	....	..	....
Vanderbilt University—Medical Department Nashville, Tenn.	3	2	1	1	1	...	....	.....	....
Detroit Medical College, Michigan	2	1	1	1	1	....	....	....	....
University of Michigan—Medical Department, Ann Arbor	1	1	....	....	....	..	....	....	....
St. Louis Medical College, Missouri	1	1	....	....	.....	.....	.....	....	....
Columbus Medical College, Ohio	3	1	2	1	1	....	....	....	.....
Cincinnati Medical College, Ohio	1	.....	1	.....	....	.....	....	...	....
Cleveland Homœopathic Hospital Medical College Ohio	2	2	.....	....	...	....	....	....	....
Leonard Medical College, Raleigh, N. C., (colored)	4	3	1	.....	....	....	...	.....	.....
Medical College, State of South Carolina, Charleston	1	.....	1	.....	.....	....	.....	....	....
Heidelburg, Germany	1	1	....	.....	....	.....	....	....	....
St. George Hospital, London, England	1	1	....	....	....	....	....	....	.....
Colleges unknown, (Record not sent by Examiners)	4	3	....	...	....	....	....	....	1
Non-Graduates	15	6	7	....	....	.....	....	....	2
Totals	*288	*213	*68	24	15	9	1	1	7

* While from the total of the first column, it would appear that there were 288 applicants, 5 of these each held diplomas from two institutions, thus making the real total number of applicants 283; four of the five applicants received certificates—thus making the total number awarded certificates 209 (second column); one of the five was rejected—thus making the total number rejected, 67 (third column).

STANDING IN EACH SECTION OF THE APPLICANTS REJECTED 10TH AND 11TH, 1889, AND THE COLLEGES FROM WHICH THEY RECEIVED DIPLOMAS.

The standard of requirements for license is an average mark of 75 per cent on the whole. If, however, an applicant receives less than 33⅓ per cent. in any one of the eight Sections, he is rejected.

Nos. with which examination papers were signed.	INSTITUTIONS.	Chemistry.	Anatomy.	Hygiene and Med. Jurisprudence.	Physiology.	Mat. Med. and Therapeutics.	Obstetrics and Gynæcology.	Practice.	Surgery.	Aggregate Standing.	Remarks.]
9	Medical Department, University of Maryland	41	30	75	36	95	80	75	91	523	
14	College Physicians and Surgeons, Baltimore	90	..	.....	..	....	.....	..	..	90	withd'w
17	Medical Department, University of Maryland	24	52	82	44	75	66	75	95	513	
18	Jefferson Medical College	49	42	75	70	73	90	50	75	524	
19	Medical Department, University of Louisville	40	42	69	53	70	72	70	60	476	
22	Medical College of Virginia	61	..	.....	..	..	....	..	..	61	withd'w
23	Baltimore Medical College	38	69	68	39	63	80	89	90	536	
24	Baltimore Medical College	38	50	77	50	77	65	79	76	512	
25	Medical College of the State of South Carolina	46	47	83	11	86	76	75	75	499	
26	Jefferson Medical College and Louisville Medical College	25	20	75	51	65	40	80	80	436	
35	Medical Department University of Maryland	13	18	75	37	67	60	65	65	400	
37	Medical Department, University of Maryland	58	26	60	42	76	72	75	70	479	
38	College of Physicians and Surgeons, Baltimore	6	4	43	30	61	45	70	41	300	
39	Howard University, Washington, D. C.	..	38	51	..	49	62	75	26	301	
15	Non Graduate	42	33⅓	79	50	84	85	90	75	538⅓	
20	Non Graduate	79	34	74	65	61	85	81	75	554	
34	Non Graduate	46	14	75	62	44	60	34	70	405	

INSTITUTION REPRESENTED BY THE APPLICANTS WHO CAME BEFORE THE MEDICAL EXAMINING BOARD OF VIRGINIA, IN SESSION IN RICHMOND, April 10th and 11th, 1889.	Total Number Applicants from each College.	Total number Applicants Licensed.	Total Number Applicants Rejected.	Incompleted Examinations by Withdrawals.
Medical College of Virginia	6	5	.....	1
Medical Department, University of Virginia*	4	4	.....	.....
Medical Department, University of City of New York*	2	2	.....	.....
Medical Department, University of Maryland	10	6	4	.....
College Physicians and Surgeons Baltimore	5	3	1	1
Jefferson Medical College, Philadelphia*	3	1	2	.....
Louisville Medical College*	1	.....	1	.....
Medical Department, University of Louisville	1	.....	1	.....
Baltimore Medical College	2	.....	2	.....
Medical College of State of South Carolina	1	.....	1	.....
St. George Hospital, London England	1	1	.....	.....
Howard University, Washington, D. C., (colored)†	1	.....	1	.....
Non Graduates	4	1	3	.....
Total	41*	23*	16*	2

* N. B.—The first of these columns adds up 41 and the second 23, but one of the graduates recommended for license held diplomas from both University of Virginia, and Medical Department University of City of New York; and another graduate held diplomas from both Jefferson Medical College and Louisville Medical College—thus in reality reducing the total number of applicants to 39, instead of 41; and the total of licensed to 22; and the total rejected to 15.

† This applicant did not stand examination on Chemistry and Physiology; but would have been rejected, as he received only 26 on Surgery, while the minimum necessary for license on each branch is 33⅓ per cent.

Dr. Nelson presented a petition, signed by twenty-three members of the graduating class of the Medical Department of the University of Virginia, asking that a meeting of the Board be held in Charlottesville some time early in July. After a full discussion of the subject of the petition, the President was requested to notify the petitioners that it was inexpedient to have a meeting of the Board at that time and place.

The question as to the place of the next meeting was discussed, and Roanoke, Va., was decided upon, the time being September 3d, 1889, when the Medical Society of Virginia convenes.

Dr. I. S. Stone called attention to the fact that there were some members of the Board who never attended its meetings. He thought a man who would not or could not attend, and show his interest in the work, should resign. He therefore submitted an amendment to the By-Laws, to be acted upon at the next meeting, which provides that a member who fails to attend two consecutive meetings without good excuse, be requested to resign. Professional engagements were not good excuses. Not a member was present who had not made a sacrifice in order to be present.

Dr. Hugh M. Taylor offered an amendment to the By-Laws, to be acted upon at the next meeting, and not to go into effect until after the next meeting, which provides for a reduction of the number of questions on the Practice of Medicine and Surgery from 20 to 10 or 12.

It was also decided that the Board had the power to order the re-examination of any paper or papers, and after doing so to change, if they thought it justifiable, the valuations put upon the paper or papers by the Committees.

It was resolved that, in the cases of rejected applicants by the Board, their marks in the various branches—viz., anatomy, chemistry, etc-—be published with the names of the colleges from which they received their diplomas, in order that the schools may know wherein their graduates were deficient before the Board.

Thirty-nine applicants applied for examination. Twenty-two received an average of 75 per cent., which entitled them to the license of the Board. Fifteen fell below the average of 75 per cent., and were rejected; and two withdrew after writing a part of the examination answers,

The followsng named are the applicants who received the license of the Board: Drs. Guy Miller, Richmond, Va., T. E. Hunt, Richmond, Va., C. M. Blackford, New York,

R. O. Owen, Lynchburg, Va., Henry P. Frost, Marshall, Va.; J. Page Massie, Sandiges, Va.; J. N. Ellis, Moseley, Va., J. W. Henson, Trevillian, Va., J. E. Eakle, New Hope, Va., G. B. Fadely, Farmwell, Va., E. D. Davis, Stanardsville, Va., J. B. Rawlings, Lukes, Va., J. B. Catlett, Staunton, Va., C. H. Kinnear, Lynchburg, Va., J. P. Haley, Buckners, Va., LeRoy T. Nash, Norfolk, Va., J. F. Mapp, Machpongo, Va., P. B. Pendleton, Cuckoo, Va., John E. Page, Berryville, Va., G. L. Ames, Pungoteague, Va., F. I. Stone, Richmond, Va., C. L. Charters, Roanoke, Va.

LOUISIANA STATE MEDICAL SOCIETY.*

First Day—Morning Session.

The Eleventh Annual Session of the Louisiana State Medical Society convened in Tulane Hall, New Orleans, April 9, 1889, and was called to order by the President, Dr. I. J. Newton, Jr., of Bastrop. The Recording Secretary, Dr. P. B. McCutchon, of New Orleans, was in his chair. Rev. Davis Sessums, of New Orleans, opened the session with prayer.

The Mayor, Hon. Joseph Shakespeare, welcomed the visiting doctors to the city. Dr. J. P. Davidson, President of the Orleans Parish Medical Society, greeted the State Society.

The Committee on Arrangements, Dr. C. J. Hickman, Chairman, presented the programme. The Committee had obtained reduced rates of fare on the railroads, and also at the hotels. As Vice-President of the Board of Administrators of the Charity Hospital, he extended an invitation to the members to visit the Charity Hospital.

Dr. P. B. McCutchon, Chairman of Committee on Publication, presented his report, in which he stated that 500 copies of the Transactions of 1888 had been published, and that they had been distributed to the members, medical societies, and numerous journals.

Dr. J. W. Duprée, the Chairman of Committee on State Medicine and Legislation, presented his report.

Dr. Hebert said that two years ago the Attakapas Medical Society had formulated a law, with a penalty attached,

* We are greatly indebted to the use of advanced proof sheets of the *New Orleans Medical and Surgical Journal* for May in the preparation of this report of the proceedings.

in regard to the practice of medicine, and presented it to this Society, and wished to know what had become of it.

Dr. Duprée said it reached the Committee just before the Legislature adjourned; consequently nothing was done about it.

Dr. LeMonnier said that no mention had been made of the fact that the law entitles a man without a diploma, with more than four years' practice, the same privileges as a man with a diploma. This Society should go on record as opposed to such a law, and do its utmost to have it repealed.

Dr. Chaillé said he endorsed the report theoretically, especially with reference to the four years' attendance at medical colleges, but to be practical it must be general.

On motion the report was adopted.

Recording Secretary Dr. P. B. McCutchon presented his report, which was adopted.

The Treasurer, Dr. F. W. Parham, being in Europe, the acting Treasurer, Dr. P. B. McCutchon, presented his report, which was referred to the Auditing Committee—Drs. C. J. Beckham, C. D. Owens, T. Hebert.

The following names were proposed for membership: Drs. J. D. Trahan, Lafayette; N. P. Moss, Lafayette; F. D. Mudd, Lafayette; John Del'Orto, C. P. Wilkinson, J. B. Hart, J. H. Schenck, W. S. Beckham, L. G. Lebœuf, New Orleans; A. J. Perkins, Lake Charles; G. R. Fox, Moreauville. Under a suspension of the rules, the above gentlemen were elected by acclamation.

Society adjourned to 8 P. M.

Evening Session.—Dr. D. R. Fox, Vice-President of the First Congressional District, called the Society to order at 8:15 P. M. Dr. I. J. Newton, Jr., the President, delivered his address; after which the President introduced Rev. T. R. Markam, of New Orleans, who delivered the oration.

Adjourned till 10 A. M., to-morrow.

Second Day—Morning Session.—The Society was called to order by Vice-President Dr. W. D. White. The reading of the minutes of the first day's session was dispensed with.

Dr. J. S. Branch, Evergreen, and Dr. W. G Branch, Bunkie, were proposed for membership, and were elected by acclamation.

Dr. Joseph Jones, on behalf of Dr. Dunglison, presented two works to the Society, and requested that the Secretary return thanks for them.

A communication from Dr. Charles Rice, of New York,

with reference to the revision of the U. S. Pharmacopœia, was read, and on motion, was ordered to be spread upon the minutes.

The Secretary read the resolutions adopted by the State Medical Society of Arkansas, condemning quack advertisements, etc., in religious papers, which, on motion of Dr. Day, were received and endorsed.

The credentials of Dr. L. B. Edwards, of Virginia, as a fraternal delegate, were presented by Dr. Bemiss, and filed.

Dr. Joseph Jones, as Chairman of the Section on General Medicine, presented his report, which was adopted.

Dr. Blanc presented the case of a German lady, aged 35 years, suffering with "leprosy," and gave an outline of its treatment.

The Chairman, Dr. R. H. Day, of the Surgical Section, presented an address, embodying the report of cases and advances in surgery. Adopted.

The Secretary read the resignation of Dr. B. Wilkinson, now residing at Pass Christian, Miss. Accepted with regrets.

Dr. Fox moved that a committee of five be appointed to consider the recommendations in the President's address, said committee to report at the morning session. Carried. Dr. Fox appointed as the committee Drs. J. P. Davidson, J. C. Brown, C. D. Owens, T. Hebert, and R. H. Day. It was then moved and carried that Dr. Fox be added to the committee as its Chairman.

Dr. Formento read a paper entitled, "The Surgeon of the Present Day."

The Auditing Committee reported that they had examined the Acting Treasurer's report, and, finding it correct, recommend its adoption. Adopted.

The following papers were read by title: "Some Cases of Injury to the Eye," by Dr. O. R. Lanng, New Orleans; "Cause of Corneal Bleb," by Dr. F. J. Gustine, New Orleans; "Correction of the Whole Errors of Refraction as determined by the Mydriatic," by Dr. R. O. Cutter, Macon, Ga.

Dr. Fox related the history of a case of "*Chloroform Poisoning*," taken with suicidal intent, and resulting in death.

Dr. Joseph Jones said that he knew of several cases of intermittent fever where he thought death was caused by giving chloroform during the chill.

Dr. Brown said he was once called to attend a man suffering with chills and fever. He gave him 30 drops of chloroform, which made him drunk for several days, but he did not have any more fever.

Dr. Owens asked Dr. Jones if giving chloroform during congestion was not good practice, to which he gave an affirmative reply.

Dr. Fox asked what was the best treatment for chloroform poisoning? Dr. Day said, to suspend the patient by the heels; to perform artificial respiration, and also to use electricity. Dr. Formento concurred with Dr. Day. Dr. Davidson said that Dr. Larrabee, of Louisville, had resuscitated a man from chloroform poisoning by the hypodermic injection of $\frac{1}{10}$ gr. atropine, after electricity had failed.

Dr. Fox reported a **"Case of Puerperal Convulsions,"** in which the patient was bled and given bromide of potash with favorable results.

Dr. Owens said that he was not opposed to bleeding, but would have dilated the os and hastened labor, applying the forceps if necessary.

Dr. Hebert said the tendency of the profession to-day is to return to bleeding. He thought he would bleed in strong, plethoric patients, and that he should also hasten labor by artificially dilating the os and using the forceps.

Dr. McCutchon said he had seen two cases of puerperal convulsions in the past nine months.

First Case.—Aged 19, a primapara, was seen in the morning; feet and legs œdematous; complained of headache, but was going about the house. I ordered large doses of cream of tartar. A few hours afterwards, I was called in great haste. I found her in convulsions. I administered chloroform; and soon another physician arrived, when we proceeded to deliver her, with forceps, of a healthy, living female child. The convulsions would recur every twenty or thirty minutes, notwithstanding the use of chloroform and bromide of potash and hydrate of chloral. She lived about four hours after delivery, and died in a convulsion. The child is now fine and healthy.

Second Case.—A multipara, about 28 years old, was pregnant for the second time, her first child being eight years old. Upon rising, about 7 o'clock in the morning, she complained of severe headache, and suddenly fell to the floor in a convulsion. I saw her about two hours after; she was having a convulsion about every fifteen minutes. I gave bromide of sodium, hydrate of chloral and chloroform, and dilated the os by means of Barnes' dilators, after which I applied the forceps, and delivered her of a large male child, which was asphyxiated. Dr. Beckham arriving about this time, we instituted artificial respiration, and gave hot and

cold baths. After working in this way for more than an hour, we got the baby to breathe, but he only lived about 24 hours. For a short time after delivery, the mother ceased having convulsions; they set in again, however. We used hypodermic injections of $\frac{1}{4}$ gr. pilocarpine, and numerous ones of brandy; also gave enemata of bromide of soda and chloral hydrate. The convulsions stopped and she was almost comatose; but by the use of brandy and hot applications, reaction set in, and she made a perfect recovery. She has no remembrance of anything that transpired for at least a week. In both of these cases labor commenced with convulsions.

Dr. Brown said he was called in consultation to see a case of convulsions occurring during the eighth month of pregnancy. She was bled three times; the convulsions ceased. She was given purgatives. In a few days she had convulsions again; she was bled with the same good result. She continued to have convulsions until after delivery. She recovered.

Another case, aged 16 years, was given drachm doses of bromide of potash until an ounce was given. Derived no results. Then gave hydrate chloral and chloroform, and applied mustard to inner surfaces of thighs, and then gave fifteen grains of quinine three times a day. She had convulsions for two or three days, and finally recovered.

Dr. Fox stated, in reply to Dr. Owens, that he did not use forceps in his case, because the convulsions had ceased, and labor was progressing rapidly.

The Society adjourned to meet at 7:30 P. M.

Evening Session.—The Society was called to order at 7:45 P. M., by the President. He introduced Prof. Woody, of Louisville, extended to him the privileges of the Society, and invited him to a seat upon the platform. An invitation from Dr. E. T. Shepard to visit the Louisiana Retreat was accepted with thanks.

Report of the Nominating Committee.—For President, Dr. C. D. Owens, Eola; For Vice-Presidents—First Congressional District, Dr. A. B. Miles; Second Congressional District, Dr. Chas. Chassaignac, New Orleans; Third Congressional District, Dr. T. Hebert, New Iberia; Fourth Congressional District, Dr. J. C. Brown, Arcadia; Fifth Congressional District, Dr. R. W. Seay, Pilcher's Point; Sixth Congressional District, Dr. J. S. Branch, Evergreen. For Recording Secretary, Dr. P. B. McCutchon, New Orleans; for

Treasurer and Librarian, Dr. R. H. Day, Baton Rouge; for Orator, Col. Boyd, Baton Rouge. Place of meeting, Baton Rouge; time of meeting, second Tuesday in May, 1890. Dr. Day moved that each recommendation be taken up *seriatim*. Carried.

Each of the officers were then elected by acclamation in turn. Baton Rouge was selected as the place of meeting.

When the vote upon the time of meeting (second Tuesday in May, 1890) was about to be cast, Dr. Day said he thought we should meet one month before the Legislature, in order that we might have everything ready which we wished to bring before that body.

Dr. Owens said that the date of meeting was discussed by the Nominating Committee, and the date recommended was regarded as most appropriate.

Dr. LeMonnier was in favor of meeting at the same time as the Legislature. It is time that we were taking an active part in procuring a good law regulating the practice of medicine and surgery.

Dr. Chaillé said that we could trust the Chairman of the Committee on State Medicine and Legislation, Dr. J. W. Duprée, to have everything ready to be brought before the Legislature, and therefore he favored the date recommended.

The vote being taken, the second Tuesday in May was fixed as the time of meeting.

Dr. A. G. Friedrichs, Chairman of the Section on Dental and Oral Surgery, made his report, which was adopted.

Dr. LeMonnier called attention to the presence of a Committee, consisting of Messrs. Kepler, Brand and Chalin, from the Louisiana State Pharmaceutical Association. The President introduced them. Mr. Brand said that they desired to submit the National Formulary for the consideration and adoption by the State Medical Society, as authority for all officinal preparations contained in the same. He presented several copies of the work.

On motion of Dr. Miles, who had examined the work, it was endorsed.

Dr. R. Matas read a paper entitled, "Multiple Sarcoma of Cranium, with Extensive Necrosis of Frontal Bone, of Doubtful Origin."

A paper entitled, "Drilling of Capillary Holes Through the Skull to Explore with the Hypodermic Syringe," was presented by Dr. Souchon.

Dr. Logan expressed approval and satisfaction with the

paper. This original and simple method would enable surgeons to make a correct diagnosis in cerebral lesions.

Dr. Matas said this plan of exploring the brain would be very serviceable, especially in locating abscesses.

Dr. T. Hebert, Chairman of Section on Materia Medica and Therapeutics, submitted his report, which was adopted.

Dr. Blanc read a paper on the "Late Syphilides," and presented diagrams.

He also called attention to the "Louisiana Library Association," having for its object the accumulation of medical literature in a suitable building (Tulane Hall), where the members may consult the books or take them home. At present there are thirty members, and receive seventeen journals. He hopes this Society will assist in every way, either by giving subscriptions or books.

Dr. Lawrason read a paper on "Hysterectomy."

On motion, the Secretary was given the usual honorarium of $150.

Adjourned, to meet at 10 A. M., April 12.

Third Day—Morning Session.—The Society was called to order at 10:45 A. M., by the President. Reading of the minutes was dispensed with.

The following names were presented for membership: Drs. W. E. Schuppert, C. H. Tebault, V. L. Gilmore, New Orleans; T. P. Caillouet, Lockport. Under a suspension of the rules, they were elected by acclamation.

The President announced that he had added two Sections to those adopted at the last session—viz., Dermatology and Diseases of Children; and asked the Society to approve of his action. Carried.

At the request of Dr. Duprée, Chairman of the Committee on State Medicine and Legislation, Dr. Bemiss offered the following resolution:

Resolved, By the Louisiana State Medical Society, that there should be definite legislation separating the teaching and licensing powers. Adopted.

Dr. Day read a paper entitled,

Puerperal Eclampsia. Dr. Bickham said that the cause of the convulsions was a mooted question, but undoubtedly it is connected with some malfunction of the kidneys. When called to a case before labor had begun, he gave salines, diuretics, and diaphoretics. He controlled convulsions by hypodermic injections of morphine and pilocarpine; he also gave the bromides and hydrate chloral. He did not think

it good practice to deliver too rapidly; especially should we avoid all violence.

Dr. J. B. C. Gazzo said that in his parish he had seen three cases which were due to hysteria.

Dr. Miles said that we should empty the uterus as soon as possible. We could dilate the os with Barnes' dilators or the hand. He used chloroform, hydrate chloral and bromides; he never gave opium. The reader emphasized blood-letting; but the reporter thinks he went too far. The salines act slowly; pilocarpine is one of the best remedies to remove impurities from the system.

Dr. Hebert coincided with Dr. Miles concerning blood-letting; it should not be used in all cases. He gave salines and hastened delivery.

Dr. LeMonnier said he believed puerperal eclampsia was due to defective action of the kidneys. Whenever we are engaged to attend a case of labor, we should examine every organ, so as to prevent convulsions if possible. When called to a case of convulsions, he delivers as soon as possible. He related that a patient was writing when she suddenly became blind; attempted to walk, and fell in a convulsion. Before he arrived she had regained consciousness. He gave compound jalap powder. Urine contained 50 per cent. of albumen. She was delivered twenty days later, and had a normal labor. He believed that the tendency to puerperal convulsions can be transmitted, as we sometimes see in several members of a family.

Dr. Bickham said that nearly four-fifths of the cases are primapara, and their blood is in a good condition. A number of them die after the uterus has been emptied.

Dr. Chew, of Alabama, was elected a visiting member.

Dr. Matas demonstrated an improved method of performing circular enteroraphy.

On motion, a recess of an hour was taken.

The Society was called to order at 2:30 P. M. by the President.

The following names were proposed for membership: Drs. J. D. Bloom, J. T. LeGrange, New Orleans; E. U. Bourg, Labadieville, and Rev. Thomas R. Markham for honorary membership. The rules being suspended, they were elected by acclamation.

The Special Committee on the President's Address submitted their report, which was adopted.

Dr. McCutchon requested to be allowed until next session to report with reference to the seal for the Society. Request granted.

Dr. Miles said that he was the only member of the Committee on Revision of Constitution present, and requested that the Society dispose of the Committee's work.

Dr. LeMonnier moved that we consider the new Constitution. Carried.

Dr. Joseph Jones moved as an amendment that we consider it by sections. Adopted.

The Secretary then read the preamble, which was adopted. Art. I was read, and not adopted.

Dr. Miles here arose to explain the purpose of the Committee, which, he said, was to abbreviate the old Constitution, not to replace it. They proposed to have only three Vice-Presidents—one from New Orleans, one from the middle, and one from the north of the State; that all officers be elected for one year; that the Nominating Committee be composed of one member from each Congressional District, and member from the Society at large. As now composed, one-half of the officers are elected from the Committee itself. These are the essential points of difference.

Dr. LeMonnier moved that we reconsider the vote to take up the new Constitution by sections. Duly seconded and carried.

Dr. Mayer moved that the new Constitution be adopted as a whole.

Dr. Joseph Jones called for the yeas and nays. Yeas, 11; nays, 7. As it required two-thirds of the votes cast to change the Constitution, it was lost.

The Secretary read a paper entitled "Morphine *versus* Strychnine," by Dr. J. C. Brown.

Dr. E. Laplace read two papers, entitled "Removal of Urinary Calculi Through the Urethra," and "A New Method of Treating Fracture of Patella."

Dr. Day asked if the silver wires were still in the joint. Dr. Laplace gave an affimative reply, and stated that fibrin was deposited, in which the wires became encysted. The joint will never be as perfect as the other one. Dr. Miles said he regarded Dr. Laplace's procedure as an improvement in the treatment of fracture of the patella. He would like to ask if the passage of the wires around the tendon would not answer better than passing them into the joints.

Dr. Laplace said that there were a number of ways of bringing the fragments together, but in this case he intended to drill through the fragments, and whilst doing so his drill broke, and he improvised the method which he described. We have seen that we can open joints with impunity, provided we do so aseptically.

Dr. Chew, of Alabama, concurred with Dr. Laplace. He would remove all foreign bodies, and then bring the fragments together aseptically with hooks.

Dr. Matas said he was much interested in the paper. The main question is the result. The wire sutures are only applicable to cases of long standing. In recent cases, Malgaigne's hooks, aseptically applied, is the best method, or by passing the wire around the patella. He could not recommend the method suggested by Dr. Laplace.

In reply, Dr. Laplace said the results were not very different, as we did not get a perfect joint by any method.

The following papers were read by title: "Clinical Cases, with Remarks," by Dr. J. Mayer; "Placenta Prævia," by Dr. W. D. White; "Neglected Advantages of Caustic Pastes in the Treatment of Malignant Growths in Certain Localities," by Dr. R Matas.

Dr. Hebert offered the usual resolutions of thanks, which were unanimously carried.

Dr. Newton introduced the President-elect, Dr. C. D. Owens, who said it gave him a great deal of pleasure to assume the duties of this high office, and that he would do the best possible to further the Society in every way.

Standing Committees 1889–90.—On Arrangements—Drs. T. J, Buffington, Chairman, Rivers Jones, R. M. Carruth.

On State Medicine and Legislation—Dr. J. W. Duprée, Chairman; Drs. R. H. Day, S. Logan, J. P. Davidson, A. B. Miles, D. R. Fox, S. T. Meeker, J. C. Egan, T. J. Buffington, E. M. Hooper, B. T. Moseley.

On State Medical Library—Dr. J. W. Duprée, Chairman.

Sections—Chairmen.

General Medicine—Dr. J. B. Elliott.
Surgery—Dr. R. Matas.
Obstetrics and Gynæcology—Dr. J. W. Duprée.
Materia Medica and Therapeutics—Dr. W. W. Ashton.
Ophthalmology and Otology—Dr. S. D. Kennedy.
Dermatology—Dr. H. W. Blanc.
Diseases of Children—Dr. I. J. Newton, Jr.
Oral and Dental Surgery—Dr. A. G. Friedrichs.
Anatomy and Physiology—Dr. A. Meshane.

Delegates to the American Medical Association—Drs. S. E. Chaillé, J. W. Duprée, A. B. Miles, S. Logan, J. C. Brown, W. D. White, P. Crain, T. Hebert, Smith Gordon, A. A. Carruth, J. J. Bland, J. W. Allen, J. A. Johnston.

All business being finished, the Society adjourned, to meet at Baton Rouge on the second Tuesday in May, 1890.

MEDICAL ASSOCIATION OF THE STATE OF ALABAMA.

The Eleventh Annual Session of the Alabama State Medical Association convened in Temperance Hall, Mobile, Ala., at midday, Tuesday, April 9th, 1889, and was called to order by the President, Dr. M. C. Baldridge, of Huntsville; Dr. Thomas A. Means, of Montgomery, Secretary, was at his desk. The other officers and quite a full attendance of members were noted present.

After prayer by Rev. J. R. Burgett, of the Presbyterian Church, Mayor J. C. Rich delivered an address of welcome on the part of the city, and Dr. T. S. Scales the address in behalf of the Mobile Medical Society, of which he is President.

Dr. M. C. Baldridge proceeded to deliver the *Annual Address of the President.* After paying a tribute to those who have fallen from the ranks by death during the year, he referred with pleasure to the failure of the bill presented to the Legislature looking to the repeal of the law requiring examinations by the County Medical Boards before attempting to practice medicine in the State. This was the second attempt to repeal the law, but it is now statutory. He did not favor the taking away of the powers now granted to the County Boards. Referring to yellow fever, quarantine, etc., he remarked that the *quarantine system* as to railroads, which were enforced in the recent epidemic, was a farce, for passengers were continuously made to pay penance to municipal caprice—all for the lack of proper aid to the State health officer, and want of a complete quarantine system for the State. County Boards, however locally useful, are of no use for quarantine purposes to the State at large during the prevalence of yellow fever. Quarantine regulations should be general, and not different in their character in different locations. Since yellow fever is an imported exotic, the general government should maintain supervision over it. Medical experts are more competent than laymen to compose these State Health Boards. The essential conditions necessary for a successful quarantine are medical authority, State support, and a uniform system of enforcement. With reference to the question of public sanitation, he suggested the enactment of a law creating a sanitary engineer, whose duty it should be to make all necessary observations and surveys for public drainage and sewerage, thereby securing concert of action on the

part of the health boards and local authorities. He also advocated a State medical journal.

In the unavoidable absence of the Senior Vice-President, Dr. J. Paul Jones, of Camden, the President appointed Dr. L. E. Starr, of Camben, to read the *Report of the Senior Vice-President.* Dr. B. F. Cross, of Decatur, next read his report as the *Report of the Junior Vice-President.* These reports are of statistical value as to each of the County Medical Societies in the State, etc.

Dr. Thomas A. Meems, of Montgomery, presented a detailed *Report as Secretary* of the work done in his office during the past year.

The *Report of the Treasurer,* Dr. W. C. Jackson, of Montgomery, showed total receip s during the year to be $2,463.98; total expenditures, $1,488.47; balance on hand, $975.51.

The Committee on the Establishment of a *Home for the Widows and Orphans of Physicians of Alabama, and for Superannuated Physicians,* etc., asked for another year in which to complete their report, which was granted.

The *Committee on Badges** had imported some badges; but on inspecting them, the Committee found that they represented three European Orders. The Association, of course, not wishing to sail under false colors, at once repudiated them. The badges, the Committee said, were bought at a cost of 26 cents each, and were sold to members of the Association at 50 cents each as a private undertaking. The Committee asked that it be discharged from further investigation and report, which request was granted.

During the afternoon an excursion, some 15 or 20 miles down the Bay, was greatly enjoyed.

At night, Temperance Hall was filled to overflowing with members, ladies and gentlemen to hear the address of Dr. Ruffin Coleman, of Birmingham, who announced as his subject *The Higher Education of Women, with special reference to their being admitted to the Practice of Medicine.* He earnestly advocated the doctrine implied in the title given. It had been claimed that woman was not strong enough for sustained mental effort. But the truth was that women wasted strength enough in the dissipations of fashionable life to do the work of carpenters. And as to their mental

*The members of the Alabama Association during the regular sessions wear badges, which also indicate their rank in the Association. Thus, the Board of Censors wear a distinctive badge; the Senior and Junior Councillors wear another badge, while the members, composed of annually-elected Representatives from each of the County Societies, delegates from other Societies, and visitors, wear still another badge during the sessions of the Association.

capacity, it should be remembered that mothers mould the minds of their sons more than do their fathers, and that the principle is well established by fact that all great men have had superior women for their mothers—whether their fathers were men of great grasp of intellect or not. Viewing the subject from an æsthetic standpoint, it has been claimed that women should lead only a domestic life—that they should not go out into the world and work, and enter into competition with giant intellects. But we have just seen that it is from the mother that man receives his greatness. This at once yields the point of lack of woman's mental ability. As to the reflection that some would cast upon women who go out to work, speaking for himself, he wished to emphasize it as his opinion that there was no lowering of a woman's position because she sought to support herself, or those dependent upon her, by the healthy exercise of those gifts which God had graciously granted her. On the contrary, he honored her for doing so. True, as far as the study and practice of medicine are concerned, the ordeal is trying to the maiden who is beginning her studies, but he believed that with the encouragement which men of eminence and learning—such as compose this Association—could give, women would take courage and successfully face it, until custom may establish such study as a recognized right and privilege accorded to women as well as men.

The entertainment for the rest of the evening consisted in music and recitations by a number of the amateur talent of Mobile.

SECOND DAY—*Morning*—Wednesday, April 10.

After the President called the Association to order, at 10 A. M., under the head of Miscellaneous Business, Dr. B. J. Baldwin, of Montgomery, introduced an ordinance providing for the appointment of a Board of Trustees for the **Library and Museum of the Association,** who shall have power to issue bonds in the sum of five thousand dollars, for the purpose of erecting a suitable building for the Library and Museum, and a residence for the State Health Officer. The ordinance provides how the bonds shall be issued, and also makes the State Health Officer the custodian of the Museum and Library, under the direction of the Board of Trustees. For such services the State Health Officer shall be entitled to occupy the residence free of charge. Dr. Baldwin said that his object was to provide for all time to come a *perma-*

nent residence for the State Health Officer, as well as a permanent location for the Museum and Library of the Association. He referred to the small salary of the State Health Officer. Other State officials reside at Montgomery on similar salaries, but they are actuated by the opportunity for political preferment, but they often have to borrow money to pay their expenses while serving their terms. The advantages for possessing such a building are manifold. It will stimulate the increase of the Library and Museum, now small for want of a permanent abiding place. The building would be easy of attainment, as the Association has only to guarantee the interest on $5,000 at 6 per cent. for twenty years, which will only be $300 per year. The payment of the principal is guaranteed by a mortgage upon the property. If the principal is not paid at the end of twenty years, then the bonds can be re-issued to run twenty years longer. He exhibited plans of a building drawn by a Montgomery architect, showing the front elevation, and the internal plan and arrangement of the proposed building. This plan placed the Museum and Library on the ground floor, with the residence of the State Health Officer above.

The ordinance and plans of the proposed building were referred to the Board of Censors.

The next order of business was the *reading of medical papers* in the alphabetical order of the names of the authors who had been appointed, or who had promised to prepare them.

Dr. B. J. Baldwin, of Montgomery, presented as an apology for not being ready with his paper on *Eye Diseases Among the Negroes* that he had suffered a protracted illness just at the time that he was going to devote to its preparation.

Electricity in Gynæcology

Was the title of a paper read by Dr. W. E. B. Davis, of Birmingham. He believes that ultra-enthusiasm has led to frequent failure in the use of this remedy, but there should be no question as to its importance as a therapeutic agent in gynæcological practice, when such men as Apostoli, the Keiths, Engelmann, and other competent observers, who have had experience in its application, report most satisfactory results. His apparatus consists of a Gaiffe faradic battery, the bi-polar uterine and vaginal excitors of Apostoli, a fifty-cell galvanic battery—constructed by Woodruff & Harris, of Birmingham, under his supervision—the cells of which are of the Law telephone pattern; a portable

Waite & Bartlett galvanic battery, Gaiffe's galvanometer, Massey's current controller, the abdominal electrodes of Apostoli and of Martin, platinum sounds, steel needles; and metal electrodes to be used with absorbent cotton.

He advises the use of the current of the Edison circuit, direct from the dynamo, when it can be had, and thereby avoid the annoyances and inconveniences of a battery. Portable batteries have proved very disappointing for the administration of high intensities, and his work has been confined principally to office practice. Great stress is laid on the importance of the application of the faradic current in sub-involution of the uterus. Every woman who has had an abortion, or is confined at full term, is placed on ergot; and should there be incomplete involution at the expiration of six weeks, he begins at once the use of the faradic current, with the bi-polar, intra-uterine excitor of Apostoli, and repeats the application every second or third day until the organ has returned to its normal size, "whibh can always be counted on with mathema'ical certainty." He does not recommend the use of the current immediately after every abortion or delivery as practiced by Apostoli, since this treatment could not or would not be afforded except by a very small class, unless it were certain that the uterus would not return to its proper size. For this reason, ergot is prescribed in every case, as stated, since it acts very much as faradization on the smooth, non-striated muscular fibre of the uterus, although not by any means so prompt, energetic and reliable. All cases are examined at the expiration of six weeks, to ascertain whether involution has been complete.

He reported cases to show the value of the faradic current in sub-involution of the uterus, and to illustrate its efficiency in displacements due to the enlarged, hyperæmic conditions of the uterus following parturition. The current of tension (from the long, fine wire) has proven a valuable agent for the relief of pain, and cases showing permanent relief were quoted.

To illustrate the power of the faradic current on the perineum, vagina and uterine ligaments in relieving prolapsus of the uterus, and also the effects of the current in relieving pain, the following case was reported: Mrs. P., aged 35, had her last child four years ago, since which time she had suffered almost all the time from pelvic pains, insomnia, and very marked nervous symptoms. The pain was so severe at her menstrual periods that she had been advised by her

physician to have her ovaries removed, and it was for this purpose that he was consulted. Her uterus was normal in size, and prolapsed to a marked degree, which was due to its relaxed supports. The bi-polar vaginal excitor, with strong current, was used every second or third day for two weeks, and at the next period she did not know when the flow appeared. In eight weeks her uterus remained in proper position; she was relieved of the insomnia, and her nervous symptoms improved. Two months after the treatment was stopped she became pregnant.

Both the currents of quantity and tension were used at each consultation in this case—the former for the relaxed muscle, the latter for the pain. The patient always felt better after each *sèance*.

The currents of quantity and tension have been used with very satisfactory results, as indicated by Apostoli; but Dr. Davis has begun to use the current of tension not only for pain, but to stimulate relaxed and enfeebled muscle fibre The current of tension is borne better by the patient, and he has been unable to recognize the superior results of the current of quantity on muscle fibre over the current of tension. In displacements of the uterus, he supports the organ with wool tampons, and does not object to any form of pessary, properly fitted, in connection with the treatment by electricity. He believes that proper support of the organ, combined with the proper application of electricity, to be the most rational treatment for this condition.

When the uterus is enlarged, not from sub-involution, but *hyperplasia*, the continuous current is indicated. All cases of chronic endometritis are amenable to galvanism* —the positive current when there is much leucorrhœa, or profuse menstruation, and the negative in other cases. From seventy-five to one hundred and fifty milliamperes are used twice weekly for five minutes at a time. The sound is usually introduced through a bi-valve speculum, and the handle allowed to rest on a large wad of absorbent cotton, which prevents injury to the endometrium. This is preferred because it admits of more thorough antisepsis, and allows the physician to rest his hand during the operation. He does not say that electricity will do away entirely with such surgical procedures as shortening the long ligaments—Alexander's operation—or attaching the cornua of the organ to the abdominal wall, or the narrowing of the

**Apostoli; Chronic Metritis, etc.*

vagina by the many methods at present in vogue, but he insists that many cases may be relieved by this method of treatment, which would otherwise be condemned to the knife.

Chronic inflammatory exudations in the pelvis should be punctured from once to twice a week, and from one hundred to one hundred and fifty milliamperes of the negative current used. The faradic current is an admirable remedy for the so-called chronic pelvic inflammations—thickening of one or both broad ligaments from the collection of blood in the distended veins, when the uterus is displaced.* Of course the lacerated cervix, which usually causes this condition, should be repaired before the administration of electricity is begun.

The local application of the faradic current is capable of relieving many cases of amenorrhœa due to atrophy of the uterus, where it needs stimulation. In menorrhagia, due to relaxation of muscle, to engorgement, when patient menstruates for eight or nine days—after a few applications the menstrual periods would only last from four to five days. The positive galvanic current is the remedy indicated for hæmerrhage due to a disease of the endometrium—and is the current usually indicated for hæmorrhage. Women often become pregnant soon after being treated by electricity, and it is unquestionably a valuable remedy for sterility due to nervous causes, so ably described by Dr. Campbell.

Neuralgic dysmenorrhœa and dysmenorrhœa in women of a hysterical temperament—in whom the slightest excitement or worry will cause to suffer greatly—those cases where there is no apparent pathological lesion—he has succeeded, as with no other remedy, by the application of the current of tension or by the mild positive galvanic current. The negative current is indicated when the pain is due to mechanical causes in the cervical canal, and when there are imflammatory deposits around the ovaries, etc.

He does not think that galvanism can take the place of the removal of the ovaries and tubes, but says each has its special field; and should electricity fail, there is no harm done, and the operation can still be resorted to.

While he has had no experience with electricity in extra-uterine pregnancy, yet from a study of the actions of the agent, and the results in the hands of others, he thinks there can be no doubt but what it should be used in the early

*Hardon, *Transactions Southern Surgical and Gynæcol. Assn.*

stages of this condition. If there be a mistake in diagnosis, no harm could be done, as this is the remedy for the pathological processes which are liable to be mistaken for extra-uterine gestation. When the pregnancy has lasted for more than three months, and when it can be positively diagnosed, it is a question in his mind whether laparotomy should not be resorted to at once.

The subject which had concerned the profession most in connection with the use of electricity was, *the treatment of fibroid tumors.* The results of the treatment in the hands of Apostoli, the Keiths, Engelmann, Lapthorn Smith, and others, had demonstrated that this is *the treatment* for fibroid tumors, which 'offer probabilities of healthy retrograde metamorphosis.' (*Engelmann.*) He had followed Apostoli's instructions in this class of neoplasms, and believed that the majority of cases could be *symptomatically* cured. Apostoli's treatment should certainly be tried before hysterectomy is resorted to.

Dr. Wm. Locke Chew, of Birmingham, did not endorse all the recommendations made as to the value of electricity; but in response to a remark from Dr. Davis, he stated that he had not used this agent in all the classes of diseases referred to in the paper, and that his objections were therefore rather theoretical than from an experimental standpoint.

Eclampsia Gravidarum

Was the title of a paper read by Dr. Richard M Fletcher, of Madison. He quoted statistics to prove how rare is this accident or complication in pregnancy and in lying-in women —reducing the statistics to show that convulsions occur in only about the proportion of one case in 718 pregnancies or labors. This record made it a little remarkable that he should have had, within the last three or four years, four cases of puerperal eclampsia. He reviewed the opinions of the most distinguished authorities on the subject of treatment; and as a result of his studies, sustained by his experience, he recommended morphia, bromide of potassium, chloral and chloroform as the most potent agents to overcome the convulsions. It should not be forgotten that chloral can be well administered with milk—an important elementary food.

Dr. Henry T. Inge, of Mobile, remarked that a marked precursory condition in most cases of puerperal convulsions was dropsy of the extremities and face, due to kidney trouble. He had been fortunate, either in escaping the usual

number of cases of convulsions of puerperal women, or else his plan of treating all such cases of dropsy had relieved the convulsive tendency. The following prescription, he said, he had used with invariable success in taking down the kidney dropsy, and in preventing the occurrence of convulsions:

℞. Potassium iodide..... .... ℥ss
Potassium bromide.....℥v
Fld. ext. uva ursi.....
Fld. ext. buchu..... .....āā ℥j
Distilled water.....℥vj

M.—S.—From dessertspoonful to tablespoonful every four to six hours p. r. n., largely diluted with water.

Dr. V. P. Gaines, of Mobile, did not think that venesection was duly appreciated in this day as a remedy for puerperal convulsions. He narrated some encouraging experiences with it. Of course agents to relieve, as far as possible, the renal congestions, the dropsies, the convulsive sensitiveness of the nervous system, should be used as adjuvants.

Dr. J. M. Godfrey, of Sumpterville, remarked upon the great practical importance of frequent examinations of the urine during the latter months of pregnancy. The discovery of any material amount of albuminuria should serve as a forewarning, and should lead at once to the administration of diuretics. He related the history of a case in three days of her confinement, where he found the albuminuria so marked as to make the urine, on boiling, appear almost a solid mass. He resorted to diuretic remedies, but too late to relieve the condition. In seventy hours the patient was in severe convulsions. He then bled her, and he was well pleased with his experience in venesection. His patient recovered.

Ex-President, Dr. E. H. Sholl, of Birmingham, thought that we had too much forsaken the use of the lancet. He had found it his friend, and his patients' friend, in just such cases as those now under discussion. His experience was a better teacher of the value of the lancet than the reading of theoretic objections, being published from time to time in the journals and books. He has seen the time when he had cause to regret not having a lancet with him, but for the last twenty years he has carried one all the time with him, and has used it invariably with marked advantage.

The President (Dr. Baldridge) begged leave to say that he agreed with what Dr. Sholl had said in advocacy of the lancet—especially in puerperal convulsions.

Dr. A. M. McWhorter, of Gaylesville, stated that he had used veratrum viride with success, and it had seemed to him to be a good substitute for the lancet.

Dr. Inge stated that he had used veratrum viride in small doses, but was afraid to push the reme ly.

Dr. Angello Festorazzi, of Mobile, spoke of the favor with which venesection is received in New York hospitals; and while he had not enough of experience to speak of a habit, the good reports of the use of the lancet would lead him to resort to it with a marked degree of confidence in cases of puerperal convulsions.

Dr. M. J. Thompson, of Meridian, Miss., Fraternal Delegate from the Mississippi State Medical Association, on invitation to participate in the discussion, spoke of the benefit he had witnessed from enveloping the patient in warm blankets during the convulsions and afterwards, so as to bring on active diaphoresis.

Dr. E. L. Marechal, of Stockton, Ala., stated that he had had seven cases in all of puerperal convulsions, and had not lost a case. His treatment had been reliance on chloral and the free use of the lancet. He thought there was some obscure atmospheric cause operating, in addition to the mechanical nephritic disorders, to produce puerperal eclampsia in his neighborhood—that it acted as a predisposing cause. But exactly what was the nature of the atmospheric cause, or how it operated, he was unprepared to say.

In response to the invitation of the President, Dr. Landon B. Edwards, Fraternal Delegate from the Medical Society of Virginia, remarked that he had often been struck with the greater frequency of reports of cases of puerperal convulsions occurring in the practice of country practitioners, and especially of some sections of the country, than in the practice of other practitioners of the cities, having even larger obstetrical practices. Some years ago, also, his attention had been called by Dr. H. T. Bahnson, of Salem, N. C., Ex-President of the North Carolina Medical Society, to the frequency of boulimia a few weeks or months before confinement as a premonition of puerperal convulsions; and since then, examination of the records of cases (where such was given), the observation of Dr. Bahnson seemed to find support in fact. Of course we all have long since learned to appreciate the importance of albuminuric symptoms as oftentimes premonitory. But the two other statements just made are worth further examination to see if they represent facts; and if they do, to find out the relation of cause and

effect. As to treatment, his experience had not led him to think that the lancet was the "sheet anchor" of success in all cases. It was best to use judgment in the selection of the remedy—using the lancet chiefly in those cases which most resembled cases of apoplectic attacks of the writers of a few years ago. Pilocarpine hypodermically or fluid extract of jaborandi by enema, combined with chloral, helps wonderfully to relieve the oppression of the kidney-function, and to allay the irritability of the convulsive centres. Veratrum viride renders valuable aid in slowing the heart's action, and in reducing and regulating the blood pressure or supply to the overburdened kidneys, and in relieving the cerebral hyperæmia supposed to exist as well. It is surprising to see what large doses of Norwood's tincture of veratrum viride a puerperal eclamptic, having a full pulse, can take—from a twenty minim to a half teaspoonful or more every three hours, watching the effect until the cerebral blood tension is relaxed. Where the attacks were purely epileptiform, without the marked suggestion of apoplexy, the cautious administration of amyl nitrite by inhalation will generally immediately modify, if not altogether stop the fit, but it is a disagreeable remedy to administer, and the increase of the risk of post partum hæmorrhage must be watched.

Curability and Treatment of Pulmonary Phthisis.

Dr. V. P. Gaines, of Mobile, read a paper having this title. He regarded pulmonary consumption as a curable disease. Post mortem examinations of parties who had died of other diseases, but who had formerly had well developed consumption, have proved this to be so. While tubercles do not admit of absorption under ordinary circumstances, still cases do sometimes occur to give support to the belief that even this may be so. The usual way of cure, however, is by the limitation of the tubercles, and then by the establishment of general good health and the local benefit derived from agents calculated to cause just sufficient ulceration around the tubercles in the lungs to allow them to slough out of the pulmonary tissues, and be removed by expectoration. But if phthisis is to be cured—whatever may be the process of the cure—treatment must be begun early. When cured, a return to the habits of living which originally produced the disease may cause its return. As soon as the development of the disease is recognized, change the habits and surroundings of the patient. Even the presence

in the room of the dried expectorations of a phthisical patient is now known to be a fruitful means of contagion or infection in those prone to the disease; and even healthy persons who are the companions—room-mates and bed-mates—of consumptive patients may thus contract the disease. Hence the recommendation is of great importance—to observe perfect cleanliness in the surroundings, asepticize what cannot be removed from the room, and do not let healthy people sleep with those who have the disease developed. Let the patients wear flannel suitable to the weather, use sponge baths daily with water of a temperature comfortable to the feelings, etc. The climatic surroundings is a matter of great importance in the treatment. The climate of Mobile, for instance, and its immediate vicinity, has an established value in the treatment of catarrhal cases. Outdoor exercise, of course, is recommended. A good winter's effect is often lost by a too early return North, or by remaining here one winter and in the Northern climate the succeeding winter. Sudden changes from the really temperate climate of this section to the more rigorous climate of Northern States is to be avoided. If the disease is not hereditary, and the patient has an ordinarily vigorous constitution, the case may be regarded as curable. Colorado is good, but a patient must remain there. A sea voyage is also recommended. Use as little medicine as possible, and stimulants should only be taken with meals. Take food, three full meals every day, with lunch between; articles should be of light digestion. Beef, milk, cream and cod-liver oil are recommended. In case of vomiting from use of cod-liver oil, raw beef is recommended in a sandwich form. Strychnine is recommended to relieve vomiting from the use of cod-liver oil. Friction on the chest is advised. He does not advise liniments or plasters on the chest. Cough mixtures are to be avoided, as the use of them often destroys the stomach. Inhalation of a few drops of chloroform often gives relief. He has used creosote by inhalation with much success. He gave many prescriptions used by the profession. Creosote in pulmonary phthisis was shown to be used with success. He bore strong testimony to the use of pneumatic treatment, a small measure of success being obtained, but yet holding out great hopes for the future. Antiseptic inhalation is a good adjuvant of treatment, the medicated spray being carried directly to the point of complaint. The cabinet treatment had a good benefit in expanding the chest and lungs. Patients who found cod-liver

oil objectionable have been able to take it in connection with the cabinet treatment. Surgical treatment was under discussion. Openings are made through the chest wall, and astringents introduced, with success, by Drs. Pepper and Robinson, but the plan is too dangerous to warrant general adoption.

Dr. Abernethy thought it scarcely questionable whether phthisis is contagious. He knew a husband who had died of it, taken from the wife.

A member thought if contagious, it did away with the idea of its being hereditary. He advised proper nourishment. Had found good results from creosote. Bad creosote did great harm. Had an inhaler made by a tinner like a coffee-pot, with a cap. As to inhalation in general, however, he had seen no success.

Dr. Sholl asked what to do with a patient who could not swallow because of the soreness of the fauces, etc.

Dr. V. P. Gaines recommended cocaine spray. Another member recommended a spray of ipecac. Another had used nitric acid.

Drs. Johnson, Price and Lee, who had promised papers for this session, were absent, and hence calls for their papers were passed by.

We regret not having received a synopsis of the paper by Dr. E. P. Riggs, of Birmingham, on "*Dysmenorrhœa—Its Causes and Treatment.*

Dentition and the Care of Infants during this Period

Was the subject of a practical paper by Dr. Wm. Camp Wheeler, of Cherokee. He stated that during the period of dentition, which comprised no more than one-sixteenth of an average human life, according to the best statistics, fully one-half of all deaths occur. Nor is the death rate in children decreasing. Dentition is the dangerous period, and the child is more easily affected. A common mistake is to attribute almost every ailment at this period to the child's teething. The early management of children has much to do with their health during the evolution of their milk teeth. Flannel clothing should not be removed in summer, or until the third year. Never feed an infant until necessity calls for it, and then only give what is best adapted to its special care. Many children relegated to the nursery to feed on a bottle would have lived if furnished at the maternal breast. There never was, and never will be a substitute for mother's milk. The best general food is the milk of a

healthy young cow, inclosed in a pasture, and milked three times daily. The milk of roving cows should never be given children. He spoke highly of the result obtained in feeding children on buttermilk, and cited a case of one of his own children. Cut gums whenever required. In the diarrhœa of teething children calomel is the best remedy—always in minute doses at about three hours intervals until the "alterative effect" is secured as shown by the "bilious actions." Bichloride of mercury in one-hundredth grain and even much smaller doses is an excellent agent. When the mucous coat of the bowels become inflamed in chronic cases, he uses fluid extract of ergot, creosote or McMunn's elixir of opium. For chronic intermittent fever, let the patient wear a flannel jacket containing powdered camphor and cinchona. Chloral and bromide of sodium or potassium are of extreme value in the nervous or spasmodic conditions.

The *afternoon* was spent in a drive on the "Shellroad" and a lunch, under the supervision of the Committee of Arrangements, which was greatly enjoyed by the guests.

The *night's session* was taken up in discussing the **Best Methods of Administering the Health Laws** of the State. Dr. Jerome Cochran, of Montgomery, the State Health Officer, gave a history of the laws which have been in effect for ten years, and referred to the difficulties in the way of a perfect execution of these or any other laws for the collection of vital statistics, etc. He was glad, however, to note decided progress in the education of the people of the State on the subject, as in twenty counties the law is now thoroughly understood, appreciated, and executed. In ten years more, he hopes to find at least twenty other counties wheeling into line, and then the future success will be assured. The best system for the collection of these vital statistics is that known as the "Beat System," and is the one adopted by the Alabama Board of Health. This "System" requires the appointment of an officer, charged with the collection of these statistics in each "beat" of each county. These officers, in most instances, receive no remuneration, and it has been found that where such officers (designated by the County Medical Societies) are working thus without remuneration—prompted only by the love they have for their profession—the laws are better executed than where officers are paid salaries as other officials. Of course, all items of expense, such as the furnishing of blanks, books, postage, etc., are to be paid for out of the common treasury.

A running discussion followed—all speakers looking to the common end of perfecting the execution of the laws—until 9 P. M., when the Association adjourned to accept the invitation to the *Reception* given by the citizens, etc., at the Athelstan Club, where many beautiful ladies and handsome gentlemen and entertaining convesationalists were in waiting to lend greater enjoyment to the entertainments which had been liberally provided.

THIRD DAY—*Morning*—Thursday, April 11th.

Dr. J. C. Le Grand, of Anniston, was asked to make a statement about the *Alabama Medical and Surgical Age* which he is editing. He stated that he had been much encouraged, and will strive to give a creditable journal to the profession of his State. He proposes as far as possible to make it the organ of the Association.

Dr. Landon B. Edwards, of Richmond, Va. asked permission to state that Dr. Le Grand's journal was a good one, and urged the members of the Association to encourage it by subscriptions and contributions. It should serve, with Dr. Le Grand's promise to advocate every interest of this State Association, as the medium of constant communication between the physicians of Alabama.

Dr. Jerome Cochran said, as State Health Officer of Alabama, he intended to adopt the Medical and Surgical Age as the medium through which he would make his communications to the profession.

Dr. John D. S. Davis, of Birmingham, read a paper on

Epicystic Surgical Fistula for Cystoscopic Exploration; Intra-vesical Treatment and Drainage.

He said epicystic surgical fistula is the title given to a suprapubic fistula into the bladder created by the surgeon for exploration, intra-vesical treatment and drainage—a fistula which, acting as an artificial urethra, is capable of giving free access to the inside of the bladder for cystoscopic exploration, to provide a ready, convenient and comfortable means of emptying the bladder at will, and gives the surgeon a competent opening into the viscus for intra-vesical applications. It constitutes an essential element in the speedy and complete evacuation of the contents of the bladder in all epicystic operations, such as tumors, calculi, foreign bodies, neoplasms, etc. Having detected the true condition, the treatment resolves itself into the immediate necessities of the case.

Permanent after-drainage in all intra-vesical operations

cannot be necessary; but is highly essential to secure good and sufficient drainage until the paravascular tissue is disengorged, the cystitis is relieved, and the urine becomes normal, and passes per urethram unobstructed. And until this end is attained, complete artificial arrangement for the escape of the contents of the viscus must be made. In such cases of prostatic hypertrophy or malignant growths when removal of the obstruction is impossible or contra-indicated, the epicystic surgical fistula is clearly indicated and essentially necessary. It meets every possible indication for local treatment, and gives the only controllable, ready and free drainage to viscus and kidneys. Urinary back pressure as the result of incompetency of the urethra from the various immovable prostatic troubles is often an immediate and remote cause of surgical-kidney, which can only be removed or relieved by supra-pubic drainage. In conditions of the bladder, of long-standing cystitis—as the case reported in the *Virginia Medical Monthly* (April, 1889),* in which the urethra, though made competent by cutting, was not sufficient to keep the bladder emptied without catheterization—a procedure which kept up a constant vesical inflammation, which, combined with capillary stasis attending the inflammatory process, resulted in paresis.

Dr. Davis exhibited the case of Mr. Nixon before the Association, fifty-eight days after the operation. The result in the case was until recently satisfactory. The patient could retain his urine without dripping, and pass it by the fistula at will, and throw it a distance of several feet from his body.

Dr. H. B. Gwin, of New Decatur, read a paper on *The Complications of Diseases*—not sequelæ nor accidental association of diseases of different characters, but such as experience has shown must be watched for during the treatment of several well known diseases. He urged upon practitioners—especially the younger ones—the importance of keeping on the look out for such complications, which complications are often more serious than the original disease itself.

Dr. Morris J. Thompson, of Meridian, Miss., read a synoptical paper on *Ovarian Tumors*. He exhibited five pathological specimens, preserved in alcohol, which he had recently removed from three different patients. One of the specimens was an ovarian polypus, containing a perfect

*Also *Alabama Medical and Surgical Age*, April, 1889, and *New York Medical Journal*, April 13, 1889.

cyst, removed from a pure-blood negro. The report was of special interest because of the occurrence of the ovarian cyst in a negro, as many prominent authorities had denied that the negro is liable to cystic tumors of the ovaries. Two of the specimens were fibroid tumors—one weighing two pounds, and the other several ounces. Another pair of pathological specimens consisted of a large and small cyst, removed with the two ovaries of a patient—the smaller one undergoing decomposition. The Doctor's report was received with interest and thanks.

Dr. Cochran said that Dr. Thompson's paper was of interest as showing the occurrence of cystic ovarian disease in the negro—a thing denied by those who don't know the negro as well as the Southern doctors.

Septicæmia—Necessity for Early Diagnosis—

Was the title of a paper by Dr. John Pope Stewart, of Attallia, which received general approval. After a general statement that more deaths occurred from septicæmia than are actually reported as deaths from that cause, he cited a case of death from so simple a thing as the result of pulling a tooth; and referred to other apparently trivial causes, such as stumping a toe. Blood poisoning is the common name for "septicæmia." Normal blood does not contain the septic germs. They are imported. There are two theories as to how septic poison is introduced into the system, and they are sustained by learned men on both sides. One theory says they come from without the body—are already existing in the atmosphere of certain localities, etc.; and the other theory says they are developed from innocent germs within a body thrown out of a state of health, etc.

Septicæmia begins with a chill; then the facial expression becomes death-like. On January 17 a patient came to his office and complained of neuralgia, having had a tooth pulled. On the fifth day a chill set in; in five days more came the fatal facial expression. He died of septicæmia, but no post mortem was held. This teaches the necessity of making an early diagnosis, said the Doctor. He gave his system of antiseptic surgery; he urged stimulating the patient, using alcoholic drink freely. He gave the treatment in full for septic poison.

Treatment of Ascites by Drainage

Was the title of a paper prepared by Dr. Charles Wheelan, of Birmingham, which he had requested Dr. W. E. B. Davis to read for him. His principal point was to advocate a

modified laparotomy and the insertion of a drainage tube in the abdominal cavity as the means of cure. His paper detailed an illustrative case which had occurred in his practice.

Dr. E. J. Connyington, of Decatur, made some extemporaneous remarks on *Perineal Laceration*, describing a method of his own devising, which he had put to a practical test for the treatment of such accidents. He will reduce his remarks to manuscript for the forthcoming volume of the Transactions of the Association.

Dr. A. Festorazzi, of Mobile, read a paper on the *Causes and Treatment of Gonorrhœa in the Female.* [We are sorry the Doctor did not forward synopsis of it.]

Dr. B. L. Wyman, of Birmingham, read a paper giving a statement of the *Recent Advances in the Radical Cure of Inguinal Hernia.*

Dr. J. D. S. Davis, of Birmingham, showed a catgut mat introduced and used by him as a substitute for Senn's decalcified bone plates in surgery on the intestines. [A fuller descriptive statement is made in our editorial columns.]

Wild Syringa for Cystitis.

Dr. G. W. McDade, of Montgomery, read a report of several cases, showing that a decoction of wild syringa (which grows abundantly in the country around Montgomery) acts with very positive beneficial effect in cases of catarrh of the bladder.

Blood-Letting

Was practically the subject of the omnibus discussion. It was opened by the report of a case by Dr. E. H. Scholl, of Birmingham, who reported a case of pleuro pneumonia which he believes he cured by the application of the lancet.

Dr. B. Fletcher advocated venesection in certain cases of pneumonia to relieve threatened serious congestion of the lungs.

Dr. J. P. Stewart also added his testimony as to the benefits to be obtained from blood-letting in certain cases of disease, as in acute mania—especially if there is the slightest evidence of acute meningitis—and in most cases of convulsions—puerperal and non-puerperal.

Dr. Landon B. Edwards, of Richmond, Va., in response to call, remarked simply that the practice of venesection in an earlier day had been carried to an extreme, and hence the recoil from its practice to-day. When he was a boy, no less a giant in medicine and surgery than John P. Met-

tauer, for instance, was in the habit of calling out his farm-hands, in Prince Edward county, Va., each spring, and bleeding each one, simply because it was spring, with the idea of "keeping the blood pure." The influence of the practice of such a man influenced the practice of many farmers around. While the strong bounding pulse of certain cases of apoplexy—using the term in the usual acceptation among practitioners of a few years ago—with other signs of congestion, or hyperæmia of the brain, etc.—undoubtedly would call for bleeding, local or general, yet venesection could not be confidently re-adopted into general practice for the ordinary run of cases. But the decision as to the resort to the lancet must be made at the bed-side, and depend upon the condition of the patient, and not upon the name of the disease.

Dr. W. P. Stewart, of Attalia, introduced the subject of

Consumption Among the Negroes.

In his remarks he stated that the disease was frightfully common among the negroes of his section, and that the tendency seemed rather to an increase of disease among that class than towards a decrease. He attributed a great deal of consumption among negroes to syphilis.

Dr. McKintrick stated that the average mortality from consumption in his section was about one white to seven negroes.

Dr. W. E. B. Davis, of Birmingham, thinks the admixture of the white and colored races had something to do with the increase of consumption among the mulattoes, and all others classed as blacks.

A running talk by Drs. Wilkinson, Le Grand, McDade, Sledge and Baldridge followed.

Adjourned to dinner, and the *afternoon* was devoted to a ride out on the dummy-train to Spring Hill, etc. While on this trip, that which attracted more favor than all else was the privilege of a visit and introduction to Mrs. Augusta Evans Wilson, at her home near the city.

The *Night's Session* was devoted to the

Report of the Board of Censors.

This Board, it is to be remembered, has charge of all the resolutions of the Association that relate to its organization and interests in general. Dr. Jerome Cochran, as Senior Censor, reported approvingly of all the recommendations contained in the President's Address, with the exception of that part which referred to the establishment of an Associ-

ation medical journal in lieu of the annual publication of the "Transactions," which suggestion was deemed impracticable at this time. The report represented the Association as prospering in its work and statistical gathering, and urged all practitioners not yet members to join their respective County Medical Associations. Drs. McDaniel, of Dade county, Ala., and N. R. Bozeman, of New York, were added to the list of Corresponding Members of the Association. The Board unanimously approved and recommended the adoption of the ordinance offered by Dr. B. J. Baldwin, of Montgomery, for the appointment of a *Board of Trustees for the Library and Museum*, with power to issue bonds for the erection of a building at Montgomery for the same, and as a residence for the State Health Officer. The Board raised the amount of bonds to be issued to $6,000 instead of $5,000, and recommended the following Board of Trustees: Drs. B. J. Baldwin, J. B. Gaston, and S. B. Seeley. These recommendations were adopted. The Constitution *requires the Treasurer* to make a bond. In view of the small sum paid that officer, the Board recommended that it be empowered to make such bond in some guarantee company at the expense of the Association, which was concurred in. A bill for $101, balance due on *button badges*, was ordered to be paid by the Association upon recommendation of the Board.

The Report of the State Board of Medical Examiners showed that, as a whole, the tendency of the subordinate Boards was toward improvement. The questions propounded to applicants were better calculated to demonstrate the efficiency of the applicant. With regard to enforcing the law to regulate the practice of medicine, and imposing a penalty for its violation, the construction of the Code would not be definitely settled till taken to the Supreme Court. All prosecutions had resulted favorably to the State, and no appeals had been taken, so that the true construction must remain in abeyance. It is the duty of the County Boards of Medical Examiners to notify illegal practitioners of their violation of the State law, and if after notice they continue to practice, then said Board must prosecute them under the State law. An ordinance providing that physicians practicing in violation of the State law shall be regarded as dishonorable men, not entitled to recognition by the Association, and to be put under the ban of the Association, was adopted.

The Board recommended the adoption of propositions submitted to the Montgomery Quarantine Conference (many

of which were adopted by that body). One case was no evidence of an epidemic; non-intercourse was the best remedy. Disinfection was good for a whole city. Detention at quarantine camp for five days was considered sufficient. Shotgun quarantine they considered barbarous, and a disgrace to a civilized community. Health certificates ought to be required only from those coming from infected places. Refugees, under regulations, should be allowed to go whereever they will be received. Refugees may return after a frost, or after fever begins to abate. On the subject of hibernation of yellow fever, the report said it was not possible for fever to live through a winter, but is kept alive by cases. It never goes to sleep, and then awakes. Scientific quarantine was preferred to police quarantine. Local quarantines should be superseded by the State and State officers for the county on the score of economy and uniformity of system. The State Health Officers should be allowed to visit infected cities and return under regulations. This closed this most interesting report.

The Association then adjourned to meet at the banquet at the Battle House.

Fourth Day—*Friday, April 12th.*

The following introduced by Dr. E. H. Sholl, of Birmingham, was unanimously adopted:

Be it resolved, That by this we desire to express our appreciation of the faithfulness of our State health officer, Dr. Jerome Cochran, to his trust in the recent epidemic at Decatur, and to commend him for the earnest discharge of his duty.

Dr Franklin of the Board of Censors, stated they had re-elected Dr. Cochran, State health officer for five years longer.

The roll of county medical societies are complete, and contains all the counties of the State.

The death of Dr. J. M. Harvey, of Birmingham, Ala., was noted.

A letter was read from Dr. William Cyprian Cross, of Tuskaloosa, who desired to resign from the Association, as he was about to enter upon a contract to practice for the Brocton Iron Company.

Dr. J. C. Le Grand, of Birmingham, thought he ought not to be allowed to resign.

Dr. Cochran moved that his name be *stricken from the roll* of the Association for unprofessional conduct in thus mak-

ing a contract. Adopted; and the name of Dr. Cross was ordered to be struck from the rolls of the Association.

Dr. G. Pearce, of Oxford, tendered his resignation as a member. The Secretary was ordered to write a letter of regret to the doctor that ill-health compelled his resignation.

Dr. R. Huger, of Anniston, sent in his resignation, which was accepted.

The death of George Calvin Norris, of Wadsworth, was referred to and his name was passed to the grand roll of honor.

Vacancies in the College of Counsellors—There were found to be six vacancies, which were filled by the election of Drs. John M. Crook, of Jacksonville; Rhett Goode of Mobile; E. Marechal, of Stockton; J. C. Le Grand, of Anniston, Ala., W. H. Hudson, of Lafayette, and B W. Toole, of Talladega.

The Election for Association Officers for the ensuing year resulted as follows:

President, Dr. Charles H. Franklin, of Union Springs, Ala., where he has been practicing for twenty-three years; graduate of University of Louisiana in 1866.

Vice-President of Second Division, Dr. Shirley Bragg, of Lowndesboro; graduate of Medical College of Alabama, at Mobile, in 1878, and son of Judge John Bragg, deceased, of Mobile.

For the vacancy caused by the expiration of the terms of Drs. Bryce and Johnson, on the Board of Censors, the body elected in their stead Dr. E. H. Sholl, of Birmingham, and Dr. W. S. DuBose, of Columbiana. The vacancy caused by the election of Dr. C. H. Franklin, of the Board of Census, as President of the Association, was filled by the election of Dr. B J. Baldwin, of Montgomery.

The orator elected for the next annual meeting was Dr. H. T. Inge, of Mobile; alternate, Dr. W. C. Wheeler of Cherokee, Ala.

Birmingham was unanimously selected as the next place of meeting. The newly elected officers were then installed.

The usual votes of thanks, etc., concluded the session.

Upon receipt of $2.50 the Mellier Drug Co., St. Louis, will send one of their Improved Uterine and Abdominal Supporters by mail, prepaid, to any Postoffice in the United States or Canada.

Analyses, Selections, etc.

Mammary Tumors—The Importance of Early Diagnosis and Early Removal.

Dr. W. B. Rogers, of Memphis, (*Memphis Jour. Med. Sci.* May 1889), shows the importance of early diagnosis of tumor of the breast. The world needs to be educated to the fact, that malignant growths early and thoroughly extirpated, in many instances never return; that cancer of the breast is primarily a local and not a constitutional disease; that early removal sometimes saves a life, prolongs many lives and shortens but few. All tumors of the mammæ are either cystic or solid. Three varieties of cystic growths are found:

1st. *Retention cysts*—due to occlusion of a duct with constant accumulation, causing dilatation of milk vesicles and ducts, the walls of which form the cyst's wall; such a cyst contains milk, with occasional accidental hæmorrhage.

2nd. *Exudation cysts*—the dermoid cyst.

3rd. *Adventitious cysts*, or new formed cysts—whose walls are formed by the hypertrophy of dilated connective tissue spaces Such cysts contain ecchinococci, pus as in the cold abscess, or a serous fluid coming from the blood vessels and lymph spaces of the part. Of the solid variety we find four:

1st, *Adenoma;* 2nd, Fibroma; 3rd, Epithelioma—carcinoma in one of its types; 4th, Gumma. The sense of fluctuation on palpation is the test most generally used to to tell a cystic from a solid growth. But aspiration is the best method of diagnosis.

Adventitious cysts—new formed cysts whose walls consist of hypertrophied connective tissue space walls—are of three varieties:

a. *Ecchinococci*—Aspirator reveals fluid containing ecchinococci.

b. *Cold abscess*—Aspirator reveals pus.

c. *Simple and compound cysts*—Aspirator reveals serous fluid; clear or opaque, yellow, red or brown.

Retention cysts—galactoceles—occur only during lacteal period; aspirator detects milk. Considered as a whole, infant cystic tumors of the mamma are non-malignant.

Dermoid cysts are to be excised.

Ecchinococci cysts, are to be incised, curetted and drained till healed.

Cold abscesses are to be incised, curretted and drained till healed.

The galactocele is incised, or punctured and drained, while the functional activity of the gland is depressed.

Adipoma, is a diffuse hypertrophy of the normal fatty elements of the organs.

Adenoma, is a circumscribed hypertrophy of the secreting portion of the organ.

Fibroma, is a circumcised hypertrophy of fibrous tissue.

Carcinoma, is a circumscribed induration fixed in the substance of the gland.

Gumma, is a syphilitic deposit.

Dr. Rogers confesses a disbelief in any positively reliable diagnostic point between a fibroma, adenoma and carcinoma, in their infancy.

Every solid tumor of the breast ought to be extirpated in company with the entire gland, most of the skin covering the gland, the pectoral fascia; the connective tissue, fat and lymph structures of the axilla. Since 90 per cent. of tumors sooner or later develop malignancy the course to pursue is complete extirpation of the gland with the one exception, galactocele.

Causes and Prevention of Puerperal Septicæmia

Is the title of a paper by Dr. J. M. Pace (*Tex. Cour. Rec. Med.*, April, 1889). Adopting Lusk's definition of the disease, he rapidly sketches the literature on the subject from the days of Hippocrates down to the present time. The idea as to the importance of rendering the atmosphere aseptic is not now adhered to. He believes Paget struck the key-note in asserting that *aseptic surgery is clean surgery.* The belief that puerperal septicæmia was caused by the absorption of septic matter through the lesions of the genital tract was first advanced by Semmelweis in 1847, and is now no longer disputed. Credé's summary of the prevention of puerperal fever under two heads is a good one; 1st, "Prevent as far as possible the lesions of the genital tract." 2nd, "Prevent the infection of the lesions that are inevitable." Under the first head all improper positions should be corrected and few vaginal examinations should be made. He holds that the sack containing the liquor amnii should remain intact until spontaneously ruptured, unless there are good reasons for an earlier interference. Under the second heading comes the strict observance of utter cleanliness and the non-interference with the uterine cavity after labor unless the temperature suddenly rises and remains so

for twenty four hours, when uterine douches may be used and an iodoform suppository introduced.

Removal of a Foreign Body from the Bladder.

Dr. W. T. Briggs, of Nashville, Tenn., reports, (*Nashville Journal of Med. & Surg.* April 1889,) the case of a man who introduced a cylinder of steel about an inch and a half in length and a quarter of an inch in diameter into his urethra for the purpose of "cooling an irritable spot" and went to sleep. When he awoke it had escaped into the bladder. The usual symptoms of the presence of a foreign body in the bladder soon manifested themselves. A small lithotrite was introduced, the body was seized and removed. The success of the manœuvre was due to relaxing the grasp of the instrument upon the body after firm traction had drawn it to the vesical opening of the urethra, thus permitting the cylinder to be pressed upon by the surrounding parts into a line with the instrument.

Prolapsus Uteri.

In the *Nashville Journal of Medicine & Surgery* April No, Dr. W. L. Nichol, of Nashville Tenn., after describing the natural supports of the uterus, details the operation by himself on a case of thirteen years standing. It was a case of extreme prolapsus; the uterus was enlarged, the perineum destroyed, and after replacing the womb, the vagina was found to be treble its proper size. The patient being placed in the extreme lithotomy position, the mucous membrane of the posterior wall of the vagina was hooked up and stitched. This strip of mucous membrane was then dissected off with a pair of scissors and terminated in two arms on either side of the womb. The edges of the denuded structure were then stitched together with interrupted sutures of catgut, thus greatly diminishing the size of the vagina. The womb was then restored to its normal position and the perineum was restored by sutures extending throughout its entire depth. Lastly he supplemented his work by adding Alexander's operation. The result was good both to primary union and thorough sustenance of the organ.

Malignant Tumor of the Kidney and Supra-Renal Capsule.

In *Progress*, April, 1889, Dr. J. H. Grone writes the history of a woman who died from tumor of the kidney and supra-renal capsule. On Feb. 15th, 1888, she had a tumor removed from the right axilla and made a good recovery.

In October following she began to complain of pain in the loins and left side. On Dec. 27th, she was admitted into St. Agnes' Hospital, being greatly emaciated and markedly cachectic. Physical examination revealed a tumor occupying the left half of the abdomen. It was quite fixed and upon palpation was found to be firm, until three weeks before death, when it became soft. Red blood corpuscles and hæmoglobin were diminished in the patient's blood. Urine normal. Died March 13th. At the post mortem, the tumor was found to extend from two inches below the diaphragm to three inches above the brim of the true pelvis. The spleen was attached to the apex of the tumor. The kidney was in the lower segment of the tumor and enveloped in its covering. It seems to have sprung from the renal capsule—that organ being the seat of a large cyst filler with grumous fluid and fatty disintegrated debris.

Book Notices.

Pathology and Treatment of Displacements of the Uterus. By DR. B. S. SCHULTZE, Professor of Gynecology, etc., in Jena. *Translated* from the German by JAMESON J. MACAN, M. A., M. R. C. S., etc., and *Edited by* ARTHUR V. MACAN, M. B., M. Ch., etc. Master of Rotunda Hospital, Dublin. With 120 Illustrations New York: D. Appleton & Co. 1889. Cloth. 8vo. Pp. 378. Price, $3.50. (For sale by West, Johnston & Co., Richmond).

This work advocates principles in practice which are not generally adopted as yet in this country. Of course the Doctor advises the reposition of displaced uteri by the usual methods; but he lays greater stress than most authors do upon the relation of the precise pathological causes of displacements. The important thing in treatment after all—and it will be conceded on mention—consists in promoting the absorption of peri uterine-exudations; and this he accomplishes, for the most part, by the systematic use of massage, and the so-called "uterine gymnastics," introduced and developed into a system of practice by Brandt, of Christiana. Especially in cases of retroflexion and prolapse, will it be found that most of the cases of displacements are essentially dependent on relaxation of the muscular attachments of the uterus. After reposition, he retains the womb by celluloid rings peculiarly made to fit the vagina. Every page is filled with instruction, and the attentive reader must

feel the plausibility of the doctrines advocated, and put them to practical test, in the hope that he has found out at last something new and serviceable, suited exactly to that large class of troublesome and chronic cases, which seem incurable under the treatment at present in vogue. We would advise our patrons in the profession to get this work and study it thoroughly. It will well repay.

Manual of Instruction in the Principles of Prompt Aid to the Injured, Designed for Military and Civil Use. By ALVAH H. DOTY, M. D., Major and Surgeon, Ninth Regiment, N. G. S. N. Y. Attending Surgeon Bellevue Hospital Dispensary, etc. New York. D. Appleton & Co. 1889. 12mo. Pp. 224. Cloth. Price, $1.25. (For sale by West, Johnston & Co., Richmond).

This little manual describes itself in its title. It is suited to the city aubulance surgeon, to those in charge of bodies of workingmen as in building railroads, mining, etc. But it is especially adapted to military emergencies, where an ambulance corps is attached, etc. Neat plates and drawings help the text, and the details of the drill for carrying off the wounded or sick are all given. It would be well if the regimental surgeons of the various volunteer organizations throughout the country were to keep this as one of their books and as one of the necessary medical supplies of the camp or hospital department.

American Resorts; with Notes upon their Climate. By BUSHROD W. JAMES, A. M., M. D. Member of the American Association for the Advancement of Science, etc. With a Translation from the German by Mr S. Kauffman, of those Chapters of "*Die Klimate der Erde*," written by Dr A. Weoikof, of St. Petersburg, Russia, that relate to North and South America and the Islands and Oceans contiguous thereto. Copyrighted. Philadelphia and London. 1889. F. A. Davis. Octavo. Pp. 300. Cloth. Price, $2.00.

This book is intended for invalids and those who seek to preserve good health in a suitable climate. The title is so well descriptive of the scope of the well compiled work that we have adopted it quite fully. The chapters are devoted numerically to the following subjects: 1. Medical climatology; 2, Benefits and dangers of health resorts; 3, Seaside resorts; 4, Fresh water resorts; 5, Mountain resorts; 6, Trips upon ocean, lake and river; 7, Mineral springs; 8, Summer resorts; 9, Winter resorts; 10, Therapeutics; 11, Mexico and South America; and 12, Die Klimate der Erde."

A well arranged map of the United States serves as the frontispiece of the book; and an almost perfect index is appended, while between the two is an amount of information as to places for the health seeker that cannot be gotten elsewhere. We most cordially recommend the book to travellers and to the doctor.

Wood's Medical and Surgical Monographs. Vol. II. No. I—April No. 1889. CONTENTS; (I) *Diabetes and its Connection with Heart Disease*, by JAGQUES MAYER, M. D., (II) *Blenorrhœa of the Sexual Organs*, and *its Complications*, by Dr ERNEST FINGER. 8vo. Pp. 304. New York: Wm. Wood & Co. 1889. (From Publishers.)

All of our subscribers know that these "monographs" are published in monthly parts about the same size; and that the price per single copy is $1, while the price is $10 a year; and that we earnestly suggest to each one to get the volumes on annual subscription. In this number, the section on diabetes covers only about 29 pages—all the rest of the book being devoted to blenorrhœa, and as such the work becomes important to every general practitioner. Much detailed information is given in Dr. Finger's work that we have not seen in any one systematic work on venereal and other diseases of the sexual organs.

International Medical Annual and Practitioners Index. Edited by TWENTY-SIX EMINENT AMERICAN AND ENGLISH AUTHORS. Seventh year. New York: E. B. Treat & Co. 1889. 8vo. Pp. 544. Price, $2.75. (From Publishers).

Such a book as this is invaluable to all who wish to keep informed as to advances in medicine. The first part of it (some 135 pages,) is given up to therapeutics, with "the Dictionary of New Remedies, and Review of Therapeutic Progress, for the year 1888." Part II, takes up the rest of the volume with "A Dictionary of New Treatment in Medicine and Surgery,"—giving as head lines the names of the diseases, etc. "A general index with cross-references" is inserted just after the title page; and this makes it easy to refer to any subject treated of in the work. This is the first number of the "International Annual" we have ever seen, and therefore cannot compare this issue to those of former years. But the volume before us is so valuable as a ready and satisfactory reference work as to what has recently been brought to light in medicine and surgery, that we very cordially recommend it, and have to express regret that in years gone by we had overlooked the fact that such an annual epitome of medical advances was published so near at hand, in such good style, and at a most reasonable price.

Handbook of the Diagnosis and Treatment of Skin Diseases. By ARTHUR VAN HARLINGEN, M. D. Professor of Diseases of the Skin, in Philadelphia Polyclinic, etc. Second Edition, Enlarged and Revised. With 8 full page Plates, and other Illustrations. Philadelphia: P. Blakiston, Son & Co. 1889. Cloth. 8vo. Pp. 410. (For sale by West, Johnston & Co., Richmond.)

This work is well prepared and well arranged for the practitioner, with the single exception that it has no index. It seems strange, that authors, especially, have not found the great need for indexes with all the possible cross references, synonyms, etc., well paged. The "busy practitioner," frequently, has not the disposition to look back at the preface to find explanations as to how to look for subjects. He is in the habit of looking for the index, and not finding one, may throw away the information that was before his eyes, but not seen in the usual place for looking for such things. But in all other respects this is the book on skin diseases that practitioners in general want. The descriptions of diseases, the exceedingly valuable tables of differential diagnosis, the clear statements of the plans of treatment to be pursued, and the valuable prescriptions given, are things that will make this the "physicians friend" in times of need.

Surgical Bacteriology. By NICHOLAS SENN, M. D., Ph. D., Professor Principles of Surgery and Surgical Pathology, Rush Medical College, Chicago, etc. Philadelphia: Lea Brothers & Co. 1889. Cloth. 8vo. Pp. 270. (From Publishers).

Dr. Senn has become an enthusiastic advocate of all that the chief authors have written or believe on the questions of bacteriology as causative of surgical diseases. Although he does not seem to have added anything of the original work or experiment to the subject, he has so studied and analyzed the researches of others as to draw from them lessons of great every day value, and has presented them with such clearness, that even the most irresistible must feel an inclination to inquire somewhat more, and open themselves to conviction. It has ever remained a curious fact to practitioners here in Richmond, that in the last few years there have been three deaths from tetanus as the result from the use of hypodermic needles. Some are disposed to attribute the tetanus in each case to a tetanic producing element in the morphine used, while others suppose it was bacillus tetani on the hypodermic points. Dr. Senn's book should be studied by every practitioner.

Editorial.

Proposed Changes in Medical Department of University of Virginia.

At the close of the present session in the University of Virginia, the duty of selecting a successor to the venerable and beloved Dr. James L. Cabell. Professor of Physiology and Surgery, will devolve on the Board of Visitors of that Institution. It is to be hoped that advantage will be taken of this opportunity to reorganize the Medical Department of the School; and by reorganizing the subjects taught, and increasing the number of teachers, add to the efficiency of the Institution.

Notwithstanding the immense advances made in the medical sciences during the past thirty or forty years, no addition has been made to the number of Professors in the Medical Department of this University. As a consequence, the Chairs have been so overloaded that it is patently impossible for them to present the whole scope of their respective subjects in a satisfactory manner.

It has long been evident that the greatest obstacle to the success of the University has been the want of clinical instruction. The material for such instruction, we believe, would be forthcoming were there a special Professor for each of the three practical departments—Surgery, Practice, and Obstetrics and Diseases of Women and Children—who could devote their time and energy in collecting it; certainly enough might be obtained to largely illustrate the facts taught in the didactic lectures. If such a result could be obtained, the instruction given would be far more valuable, and the number of students, no doubt, greatly increased.

Let the Board of Visitors properly appreciate this fact, and they will not hesitate in June to establish a Chair of Surgery at least—if the means at their command will not justify them in establishing as well an independent Chair of Practice, and another of Obstetrics, Gynæcology and Pediatrics. Of course these chairs—one or all—should be filled with men whose reputation, skill and attainments are such as to inspire the confidence of the profession, and of such patients as might submit themselves for clinical treatment.

Let the Board of Visitors reflect, too, that in this period of rapid development of the South, there is the increasing probability of the establishment of a great Medical School,

which would render the success of the University quite problematical, if not impossible, unless they seek at once the measure of the public demand. Signs of such an issue are already apparent to those who wisely observe. Having the nucleus in the Medical Department of the University of Virginia on which to build a great Southern medical institution, why may we not concentrate thought and effort upon making it such an institution?

Defeat of the Pharmacy Board of Examiners Bill in Tennessee.

At the last session of the Legislature there was a bill to regulate the practice of pharmacy. This bill provided for the appointment of five to constitute a Board of Examiners. The bill was gotten up by the State Pharmaceutical Society. Before it was passed, many druggists began to lay wires for the appointments Of course all could not be appointed. Some who saw they were not likely to be successful wrote to members of the House against the bill, and we are informed by one who is in position to know that it was this that defeated the bill.

The Medical Examiners' Law in Tennessee.

The Tennessee State Medical Society, at the last session, adopted a bill to regulate the practice of medicine, and submitted it to the Legislature. This bill, in an amended form, was passed during the present session of the Tennessee Legislature. The following is a synopsis of the Act (which has just become a law of the State), which was kindly furnished us by Dr. Frank Trester Smith, of Chattanooga, Tenn.:

Sec. 1. Graduates are to submit diplomas to State Board of Examiners, who issue certificate, such certificate being conclusive of right to practice.

Sec. 2. All persons engaged in practice at time of passage of this Act are granted certificates on furnishing proof of same.

Sec. 3. Any one wishing to enter the practice of medicine shall present a diploma from some medical college in good standing, or shall be examined on Anatomy, Physiology, Chemistry, Pathology, Surgery and Obstetrics.

Sec. 4. The Governor to appoint a Board of six Examiners, no more than four to be of the same school of medicine.

Sec. 5. Two members of Board may grant temporary license.

Sec. 6. Members of Board to serve six (6) years.

Sec. 7. Board to hold three meetings each year—one in each grand division of the State.

Sec. 8. Board to elect their own officers.

Sec. 9. Certificates from Board are to be recorded in the office of the county clerk before holder is allowed to practice.

Sec. 10 Register to be open for inspection.

Sec. 11. Board to keep a record of its proceedings.

Sec. 12. Members of Board to receive $10 per day for services, with hotel and travelling expenses. Fee for Certificates is $1; for examination $10, $5 of which is returned if applicant fails to pass.

Sec. 13. Itinerants to pay to the Board $100 per month; a failure to do this entails a fine of $100 for the first, and $200 for each subsequent offence.

Sec. 14. Any person practicing without certificate of Board shall pay to said Board $100 for first, and $200 for each subsequent offense. Any one who attempts to file a diploma of another shall be deemed guilty of felony.

Sec. 15. Secretary and Treasurer of Board of Examiners to give bond.

Sec. 16. Board has power to revoke any license for grossly immoral or unprofessional conduct.

Sec. 17. Act to take effect sixty days after passage.

Medical Society of North Carolina.

The Medical Society of North Carolina met at Elizabeth City, N. C., April 19th, of and continued in session for three days. We are much gratified to learn that the meeting was well attended, and several valuable papers were read by those in charge of sections and others in attendance.

The time awarded to the Medical Section was chiefly devoted to the discussion of typhoid fever, especially as to causation and treatment. A special germ as to cause and the internal administration of proper germicides were advocated by the adherents of this modern school of medicine; the more conservative, while not committing themselves as to the origin of the disease, adhered to the expectant plan of treatment, opposing the use of germicides internally, as well as the antipyretics. Cold sponging and the internal use of the mineral acids were highly recommended.

The paper upon Microscopy, by Dr. J. A. Hodges, of Fayetteville, was especially interesting, not only in consequence of the manner in which it described all that had been as-

certained, in the past few years, concerning the germs giving rise to the various diseases, but likewise an accurate, full and comprehensive description of his personal labors and research in this direction, thus demonstrating that it is not essential for one to reside at a principal medical centre in order to be able to conduct successfully this branch of science. Koch came from the country, and was the pioneer in his special line of work. Who can tell what may be in store for us that is to come from medical men similarly located?

The papers upon the ear and the eye were especially valuable. These contributions were from Dr. J. M. Hodge, of Oxford, N. C.; Dr. A. C. Palmer, of Norfolk, Va., and Dr. J. A. White, of Richmond, Va. These papers were all highly practical, and contained the kind of information which is so needful to the practitioner in the daily walks of life.

We were much gratified to learn that the Society conferred the degree of Honorary Fellow upon Dr. Thos. J. Moore, of Richmond, Va. It is a marked compliment, as this Society has been especially chary in bestowing this evidence of appreciation and esteem. We are gratified to see how flourishing as to numbers and active as to work this Society has become, and we trust, as well as believe, that its career in the past is but a presage of its usefulness in the future.

Dr. Geo. Will. Thomas, of Wilmington, was elected President for the ensuing term. We hope to give a fuller report in our June number.

Note in Support of Dr. McGuire's Supra-Pubic Cystotomy for Cure of Enlarged Prostate, etc.

We have recently seen a letter from Dr. W. C. N. Randolph, of Charlottesville, Va., in which he relates the case of an old man who had retention of urine from an enlarged prostate. The bladder was enormously distended, and the prostate as large as an orange. The introduction of the catheter was attempted, but failed. The Doctor then cut through the abdominal wall just above the pubes, until the bladder was reached; a trocar was then passed into the bladder, and the water let out. The silver canula was left in the bladder for a few days, when it was replaced by a gum tube. He continued to pass his urine through this gum tube for six months. At the end of this time he could pass the urine through the natural channel. The fistulous opening

above the pubes was then permitted to close. An examination of the prostate through the rectum at this time showed marked diminution in the size of the gland. The patient lived until he was 85 years old without any return of prostatic obstruction or vesical trouble.

This case is interesting at this time, when Dr. Hunter McGuire's operation for the relief of prostatic enlargement is being discussed and practiced to such an extent. It verifies the prediction made in his paper, published in this journal (October, 1888), that absolute rest of the prostate and parts about the neck of the bladder, by an artificial urethra above the pubes, would result in a reduction of the hypertrophy, and restoration of the parts to their normal condition.

The Ohio State Medical Society

Will hold its 44th Annual Meeting at Youngstown, Ohio, May 22–24, 1889. Dr. P. S. Connor, of Cincinnati, is President; Dr. G. A. Collamore, of Toledo, is Secretary; Dr. J. McCurdy is Chairman of the Local Committee of Arrangements at Youngstown. The Secretary's circular announces the titles of 25 written communications on scientific subjects, and no doubt many more papers will be ready—thus showing that this will be a session of very great interest. Railroads and hotels offer reduced rates.

The St. Elizabeth Hospital, New York, N. Y.,

Has been re-opened. The medical branch will be under the supervision of Dr. H. Marion Sims. The Consulting Board is composed of (besides Dr. Sims) Drs. E. L. Keyes, E. J. Janeway, F. N. Otis, R. C. M. Page, James B. Hunter, John A Wyeth, J. E. Janvrin, and C. C. Lee. The nurses are the Sisters of the Third Order of St. Francis of Assisium. Patients suffering from contagious diseases, and insane or otherwise violent patients, will not be received. No provision has been made for male patients *confined to bed*, but physicians can place men in charge of such patients. This Hospital will prove a valuable addition to the wonderful number of such charities in New York.

Apposition Catgut Mats for Intestinal Anastomosis,

Was the subject of a paper read by Dr. John D. S. Davis, of Birmingham, Ala., before the Medical Association of Alabama, in Mobile April 11th, 1889. The mats are made by coiling a large catgut ligature four times, so as to have

an oval opening of any dimensions, and held in position by four ordinary catch forceps, until the mat can be woven by means of a needle threaded with a small catgut ligature. (See Fig. 1.)

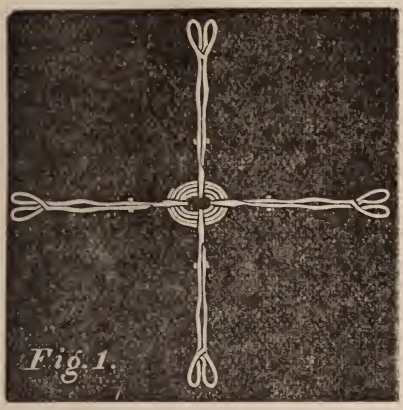
Fig. 1.

The apposition catgut mats can be quickly and easily made for encircling any size aperture desirable. When completed, the mats may or may not be pressed to flatten down the small interwoven catgut ligature to render the surface smooth

The mats retain their integrity, and do not warp. (See Fig. 2.) The threads are secured by passing a needle, threaded with silk suture, through the mat between the first and second inside catgut ribs, and fastened by returning the needle so as to inclose in the loop one or two of the threads used for weaving the rings together. (See Fig. 3.)

Fig. 2.

Dr. Davis' experimentations with apposition catgut mats in intestinal anastomosis have been highly satisfactory. They are quite as absorbable as Senn's decalcified bone plates; more easily and quickly made; as readily applied; and have the advantages for securing the threads for coaptation that can never be attained in the attachment of the coaptation threads to the bone plates. When the bone plates are not on hand for use, the making of them, or sending to distant cities for them, would be a serious delay. As the cat-gut mats can be quickly made of any desirable size, serious delays are obviated.

Fig. 3.

Archives of Pediatrics.

The April number of the *Archives of Pediatrics* comes to us increased to eighty pages, and is especially interesting and attractive. It contains, besides the regular monthly contributions, articles by Jacobi on "Therapeutics of Infancy and Childhood," and Forchheimer on the "Medical Diseases of the Mouth," (either one of which is worth the year's subscription) Townsend on "Acute Lobar Pneumonia in Children," Seibert on "Stomach Washing of Infants," an interesting article (illustrated) on the latest procedure in the treatment of gastro-intestinal catarrh, Baruch on the "Treatment of Incontinence of Urine," Earle on "Diphtheria in Children," Keating on "Differential Diagnosis in the Fevers of Childhood," and a large number of brief, practical abstracts from the German, French, and English medical journals of the day.

Dr. Benjamin Blackford,

Lately of Lynchburg, Va., was elected, during April, Superintendent of the Western Lunatic Asylum, at Staunton, Va., and entered upon the discharge of his duties April 23d. Dr. Blackford has long been a hard worker in the Virginia profession, and was the President of the Medical Society of Virginia during the year 1887–8, and presided last fall at the Norfolk session. The former Superintendent, it seems, was displaced after a partial trial of some charges brought against him. Immediately upon removing him, the Board of Visitors were forced to elect a successor, and their choice fell upon Dr. Blackford. His election, thorefore, was an honor unexpected by him, but one which we predict he will well sustain.

Seventh Decennial Convention for Revision of Pharmacopœia of the United States.

The President, Dr. Amory, of Boston, Mass., has just issued the call for a General Convention to assemble in Washinfiton, D. C., at noon of Wednesday, May 7th, 1890, for the purpose of providing for a Revision and Publication of the Pharmacopœia of the United States of America. Every incorporated medical or pharmacal College, Association or Society desiring to be represented in the Convention, should send to Dr. Amory its corporate title and a list of its officers addressed to the care of Dr. Edwin H. Brigham, Assistant Librarian of the Boston Medical Library, 19 Boylston Place, Boston, Mass.

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Original Communications.

ART. I.—Lobular Bronchial Pneumonia in the Immature Lung.

By THOMAS E. SATTERTHWAITE, M. D., of New York, N. Y.

PROFESSOR OF PATHOLOGY AND GENERAL MEDICINE IN THE NEW YORK POST-GRADUATE MEDICAL SCHOOL AND HOSPITAL.

Nomenclature and Definition.—This disease which was first called suffocative catarrh by Laennec* has had many names, and indeed it is even now known under those of broncho-pneumonia, capillary bronchitis, and catarrhal pneumonia. The common appellation, broncho-pneumonia, however, is very aptly applied as indicating the important and, in fact, necessary connection the disease has with the bronchial tubes, for it is plainly, I think, an extension of the bronchitis which causes the pneumonia. But as this general belief will, and does sometimes meet with opposition, in so far as it has been claimed that the pneumonic inflammation may extend from the bronchi through their walls rather than along their calibre, and as the word "lobular" clearly defines certain characteristics that are invariably present

* *Diseases of the Chest.* New York, 1830, p. 92.

and seen by the eye of the ordinary observer, it has seemed to me that the term lobular bronchial may properly be used as indicating the two most essential characteristics of the disease in an anatomical sense.

It is true that the late Dr. Fagge rejected the term *lobular*, because in his mind it covered the lobular pulmonary infiltration found in pyæmia; but this objection is quite overcome in my classification, because I place pyæmic pneumonia within the domain of embolic lung inflammations. I know of no other objection to the use of the term.

Capillary bronchitis, according to our present notions, is only an early stage of bronchial pneumonia, since a bronchitis of the smallest tubes (capillary), is regarded as indispensable to the production of the disease. And yet it must be admitted (theoretically at least) that a bronchitis may be capillary without passing to the further stage of alveolar implication. This merging of the old idea of capillary bronchitis with that of lobular or broncho-pneumonia, has been chiefly due to the work of French and German investigators during the past fifty years.* On the other hand catarrhal pneumonia (as a term descriptive of this type of pneumonia), is liable to two important objections, the first being that the epithet, catarrhal, implies an inflammation of the mucous membrane, while in the alveoli, where the chief seat of the disease is found, there is really no mucous membrane. And again, such a term brings us into dangerous contact with pulmonary phthisis, since under this name one form of tuberculosis of the lung has been described by Niemeyer. The term lobular bronchial pneumonia indicates that the type represents one of the two varieties of lobular pneumonia, the disease originating in the bronchi and not in the blood vessels as in embolic pneumonia. For brevity's sake, however, the term bronchial pneumonia will hereafter be used in this article without the prefix lobular.

* Fauvel was, I think, the first to make this matter apparent, for in a study of eight fatal cases in children, classed clinically as capillary bronchitis, he found disseminated lobular pneumonia more or less marked in nearly all (six out of seven autopsies). Signs of tubercles were wholly absent in all cases but one of the eight. *These pour le Doctorat.* Paris, 1840.

Varieties of the disease.—As will be seen from the description of the symptoms, this affection while unlike any of the other forms of pneumonia, varies also much in individual instances. Thus it may involve but very few lobules and then it will usually be quite mild and short in its duration; or a number of lobules may be implicated and then the disease will assume a severer type. Finally, a whole lung or both lungs may be invaded, so that comparatively little pulmonary tissue is left unimpaired. In such a case, the signs will be much like those of lobar pneumonia, though they are all apt to be more severe and persistent. Finally, the depressed condition of the child's system; the absence of sanitary requirements in its surroundings; the ignorance of how to care for the invalid and a deprivation of the comforts or even necessities of life, such as obtain so often in the homes of the poor, may so alter the character of a simple case that it will become severe from the very outset.

Age.—Broncho-pneumonia of the lobular type is the disease of children under five years of age, a date at which the youthful lung enters upon its adult condition. According to Ziemssen,* however, the disease is most prevalent in the very earliest years of life. Thus, of 98 cases that he describes, 67 were under three years of age. Many others competent to express opinions on this point have had similar experiences, and in fact, have agreed that it is most common between the first and third years of life. But the matter has certainly been misunderstood, for it is not uncommon to find that an infant that had been treated for broncho-pneumonia really died with acute pulmonary tuberculosis; and even at the post-mortem examination, unless very careful attention is given to the pathological findings, a clinical diagnosis of pneumonia may be confirmed, unless the examination is conducted by one who has had considerable experience. It is the publication of such erroneous data that has done more to retard our knowledge of the disease than anything else. Another source of error may

Cyclopedia of the Pract. Med., V., p. 189.

be readily traced to the misconception that often prevails in the medical mind on the subject of atelectasis and collapse of the lung, for it is more than probable that simple cases of atelectasis in the newly born have been classified by the inexperienced under the heading of bronchial-pneumonia; nor is the mistake always easy to avoid, as we shall see in another place.

Causation.—Among the predisposing causes of bronchial pneumonia in infants and young children are dampness in the atmosphere, or fluctuating weather, such as obtains in the autumn, winter and spring months. So also the exanthemata, such as scarlatina, measles and small-pox leave the system exceedingly prone to the inroads of this form of pneumonia, and I may say, to phthisis also. Diphtheria is also very apt to terminate in pneumonia of the bronchial variety. It is not improbable too that there are in the atmosphere at various periods matters which, if inhaled, will give rise to coryza, laryngitis, tracheitis, or bronchitis, and so finally to bronchial pneumonia. By some the continued fevers are credited with being the cause. On this point I think the proof is still insufficient. In very young infants it may often be due to the inhalation of altered secretions, meconium, perhaps blood; and an infant at birth whose respiration is defective from any cause, and who has not been made to respire vigorously, may easily allow improper substances to gain ingress to the aveoli. Then we have a pure example of *inspiratory pneumonia*, a pathological process that occurs both in the old and young, especially when respiratory action is feeble from any cause,* but chiefly in the young, because there always is and always will be, a numerical preponderance of young people in the world.

Whooping cough is also a frequent forerunner of pneumonia. Wilks, the famous London pathologist, claims to have met with it at post mortems after burns, though I would venture to suggest that his cases would more naturally come under the head of the embolic form of pneumonia according to my classification. But Jurgensen, who has

* That inspiratory pneumonia may be produced by section of the pneumogastric, I think has been satisfactorily proved by experiments on animals.

very positive views on the infective character of bronchial pneumonia thinks that it may be frequently traced to the simple breathing of an impure atmosphere. (*Ziemssen's Cyclopedia*, Vol. V, p. 189.)

In studying the characteristics of a lung that has been the seat of bronchial pneumonia, we often meet with a variety of concomitant conditions which it will be advantageous to briefly consider in connection with a description of the essential phenomena of the disease. These pathological findings group themselves chiefly under the headings: tracheitis, bronchitis, atelectasis, collapse or œdema of the lung, vesicular emphysema, interstitial thickening, bronchiectasis, pleurisy and abscess, while indications of phthisis may add to the complications or sequelæ of the case.

In many instances we find it difficult to determine whether a pneumonia of this sort did not begin with a laryngitis or even higher up, ending perhaps in an abscess of the parenchyma of the lung or in suppurative pleurisy. At any rate, we are likely to find in any given case of bronchial pneumonia certain signs of inflammatory action in the air passages above mentioned: although the peripheral branches and branchlets of the bronchial tree will suffer the most; and hence it happens that the physical signs of trachelitis or bronchitis may obscure those of the pulmonary parenchyma, so that they escape the notice of intelligent practitioners.

For practical reasons we may assume that the affection starts with catarrhal bronchitis. At first, the bronchial glands become swollen, then the normal secretion is arrested; later mucus or muco-pus is thrown off in great quantities from the inflamed or hypertrophied mucous membrane. By some it has been thought that a peri-bronchitis is soon established, leading to saccular or fusiform dilatations of the tubes. Hence the bronchiectatic cavities will naturally contain secretions that are with difficulty expelled, and for two reasons: (1) Because they may be too large for the afferent tubes; and (2) because the tubes have lost their expansile force. And so it follows that these secretions are in dangerous contiguity to the pulmonary parenchyma and

may act either in whole or in part as ball-valves to invite collapse; or when broken up may set up pneumonia by being sucked into the alveoli.

But let me revert to some of the most perplexing concomitants of bronchial pneumonia, and briefly describe their characteristics.

Atelectasis is applied to a condition of the lung, often noted in the newly-born, where the walls of certain lung alveoli and finer bronchi are closely applied to each other, and therefore are devoid of air, resembling, in fact, the unærated lung in the fœtal state, when the pulmonary tissue has not yet been inflated by the inspiration of atmospheric air. Such non-ærated areas have a peculiar appearance and resemble in many respects the areas of pneumonic consolidation, especially in their locality and mode of production, for both are most common in the lower lobes and in the lower portions of them, and are caused in either case by the existence of some material in the finest bronchi. They have the following characters: Atelectasis may be confined to a single lobule or to several, so that, in fact, most of the lung may be involved. The surface of such an area is smooth, of a reddish color, firm and non-crepitant. The atelectic portions can always be inflated in the early stages by introducing a tube into the bronchi and blowing with moderate force. The condensed lung cannot be inflated at all. The term, collapse of the lung, is applied to a similar condition when occurring after birth. It might be termed an *acquired atelectasis* (incomplete expansion). It is not uncommon, especially as the result of pressure from fluid in the serous cavities, or abdominal distension from tumors or deformities of the chest, etc. The lung recovers entirely, however, if the pressure has not been continued too lung. But in chronic conditions the collapse will continue, and then we shall have the condition known as *carnification*, where the lung, especially at its borders, has a dull red or bluish color and leathery feel, the parenchyma being entirely devoid of air.

In all chronic cases the carnified lung will be deeply pigmented. Collapse is thought to be quite frequent in con-

nection with bronchitis, and it is held to have been produced in the following manner: a little plug of mucus, or mucopus, or of secretion, altered or not, is partially lodged at a bifurcation. During expiration it is forced into the larger tube while the air passes by it. In inspiration it is drawn back against the bifurcation, thus obstructing it. So by a series of respiratory efforts, the alveoli and finer bronchi are pumped free of air. Or even if the plug should not be freely movable, as in the preceding supposition, if the minute bronchus be occluded, the ærial contents, whether they contain oxygen, nitrogen or carbonic acid gas, will be withdrawn by the laws that govern the diffusion of gases. As a consequence, the lobule collapses.

Now, both in collapse of the lung and in consolidation, we have closely allied conditions. Similarly in each a wedge-shaped portion of lung tissue is involved, corresponding to the size and distribution of the occluded bronchial tube or its branches. In both the cause is much the same, and in many instances, they may occur simultaneously, but independently, since a collapsed lung will never become condensed as in pneumonia. But in children, collapse of lobules and consolidation are apt to be associated, and one may (at post mortem examinations) commit the error of supposing that collapse of the lung is an accompaniment, but not necessarily connected with the pneumonic process. In old cases of collapse the alveoli may be filled with the products of transudation, and it may be impossible to distinguish such conditions from the first stage of pneumonia. When, however, red hepatization of the lung, or the second stage, has been reached, we have little difficulty in determining the character of the condensation, *i. e.*, at post mortem inspection. The cut surface has a dull, dry look, possibly roughened by the presence of fibrin with the other cellular elements of the alveolus, and the nodules are somewhat raised above the surface of the lung. These areas are rounded in shape, and vary in size from a hazel-nut upwards, and though they may be so augmented as to involve the whole lung, they rarely get to be larger than a pullet's egg. In the third stage we have gray hepatization, and

when resolution is at hand, there is some tendency to softening in the center of the foci, though lungs may and usually do undergo complete resolution. When the nodules reach the surface of the lung, they are covered over with a larger or smaller fibrinous patch of exudation (plastic pleurisy), which persists until resolution sets in; then we may fairly presume that it liquifies and is absorbed.

In atelectasis and collapse, there is no projection of the affected area. As these processes are not inflammatory, the adjacent surface of the pleura is not covered by any plastic lymphs.

On squeezing such a condensed area of bronchial pneumonia, a little creamy pus can be made to exude, but each nodule is surrounded by a zone of congestion and œdema, while a sort of compensatory emphysema of the vesicular variety, will be found on the anterior surface of the lung, perhaps in scattered areas. The alveoli contain more or less of blood, epithelia and corpuscles, pus, granular matter, fibrin, serum, and probably altered matters inspired from the bronchi. The amount of fibrin is usually small, although I have seen areas where it was about as prominent a phenomenon as in lobar pneumonia. Fibrin occurs in varying amounts in these deposits, and sometimes is entirely absent. The source of the epithelial cells is a matter of uncertainty. It is possible that they may proceed from the lymphoid corpuscles of inflammation, through direct transformation, or from the flattened epithelium that lines the air vesicles. It is not unlikely that they are derived from both sources, since both the blood and the solid tissues contribute to the deposit.

The most difficult pathological problem is the one that bears on the later stages of the disease. There seems to be no reason to doubt that resolution may be and is in many cases complete, so that the lung is eventually restored to its normal condition, but, owing to the somewhat protracted duration of the disease, in a certain class of cases, the opportunity is allowed for the lung to suffer changes that may cause convalescence to be tedious, even if a permanent alteration of the lung is not accomplished. For, as the

disease progresses by successive steps, all stages of the malady may be met with in the same lung or lobe—engorgment taking place at one point, while resolution is going on at another. This long-continued chronic inflammation, after lasting several weeks, gives rise to a sort of interstitial thickening of an irregular character, which, in time, suffers contraction; and we have now, in consequence, more marked dilatations of the bronchi than were seen in the early stages. Such a lung is permanently crippled. In another class of cases, small circumscribed abscesses may form, and they will either discharge into the bronchi or into the pleural cavity, causing pyo-thorax. When such a lung has undergone a tedious convalescence, there can be but little doubt that miliary tuberculosis finds for itself a suitable habitat. Personally, I am not disposed to believe that any form of true pneumonia begets phthisis; but I am disposed to think that in this particular form the convalescing lung is peculiarly exposed to the danger of infection.

It appears to be an established fact that the lung in children under five years is constantly undergoing progressive changes towards maturity, which it may be said to have reached at the fifth year.

In fact, at the fifth month of fœtal life there is said to be in the lungs as much solid tissue of the connective tissue type as there is of lung tissue. Hence, it is thought that the vascular system is capable of assuming an unusual degree of space, if at any time it is so irritated that congestion ensues; while at the same time, proliferation of the succulent connective tissues is easily excited.

Among the other organs of the body, it has been commonly held that œdema and congestion of the brain may occur in the course of a broncho-pneumonia. It has also been claimed that the stomach and intestines suffer far more than the kidneys, and my experience inclines me somewhat to this view.

Symptomatology.—From a thoughtful consideration of the manifold changes which do or may occur in any case of lobular pneumonia, it is plain that a description of their diagnostic symptoms presents unusual difficulties. One of

the first things to appreciate is that the disease begins as a bronchitis; but if at any time the cough suddenly stops and the temperature rises, we should be mindful of broncho-pneumonia; and yet it may be said, *per contra*, that the temperature, in an attack of acute bronchitis, may be higher than in an average case of pneumonia. In the one it may exceed 105 degrees; in the other it may be below 104 degrees. The pulse, however, is apt to be rapid, while the respiration is disproportionately increased. With the sudden rise in the temperature there is also apt to be dyspnœa and a short, tight cough. The child is restless. If an infant in arms, he cries to be taken up by the nurse. Breathing is shallow. The face and lips are pale. Nervous phenomena of all sorts may occur—from convulsions to the Cheyne-Stokes respiration of cerebral effusions.

In many cases we may distinguish the fine crepitant rales of pneumonia as distinguished from the sibilant and sonorous of bronchitis, but the latter may mask the former. When hepatization is established at any point, as it will from the third to the eighth day, dullness will be appreciated by percussion, if two or three lobules near together are condensed. For a similar reason, bronchial breathing and bronchophony may or may not be detected. Sometimes the fever is high and continuous; usually, it is remittent in character. The sputum cannot assist much in the diagnosis of pneumonia in young children, as a great deal of it passes by the bowel, while a small amount only comes by the mouth, and that, in a more or less altered condition.

Diagnosis.—It is usually regarded as a matter of importance to distinguish collapse of the lung from consolidation but from this view of the case it will be seen that collapse may be and often is an introductory stage to lobular pneumonia, or that it may occur at any time in the course of pneumonia. But apart from the ordinary physical signs of collapse, it is evident that a sudden rise of temperature would mean pneumonia, since collapse is an afebrile state. In lobular pneumonia the entire history is different. There the disease originates without a preceding bronchitis, usually

with a chill and marked pain in the side and the area of consolidation is soon very large. There is also a marked crisis or defervescence such as is not seen in lobular pneumonia, and the attack is almost invariably over within two weeks.

More difficult is the diagnosis between lobular pneumonia and acute miliary tuberculosis. Perhaps it is not possible to draw sharp lines of distinction between them, but if feasible it is suggested that it may be done on the following lines: 1. High fever before the bronchitis and attended wtth marked dyspnœa. 2. Unusual persistence of the physical signs. 3. Marked cerebral symptoms. On this subject it must be admitted our ideas are very hazy.

Treatment.—In bronchial pneumonia treatment should par-excellence be expectant or symptomatic, for, as in acute lobar pneumonia, we cannot cut short the disease. Great attention should be paid to the smallest particulars if we would be successful. The room should be light and airy, the temperature steady at 70°—72° F. As moisture gives great relief when breathing is embarrassed some sort of a steam apparatus should be kept constantly in the room. Often some simple household utensil, such as a kettle of hot water, answers the purpose as well as any other.

The food should be easily assimilated. For this reason infants should have pure milk to which a little lime-water has been added, or one of the various "infants' foods" may be substituted for the milk. The dyspnœa is partly relieved by the attentions of a good nurse. The child, when worrying andi n evident, distress can be quieted by being placed in the vertical position, perhaps thrown over the shoulder and carried about the room. I have known life to have been saved apparently by such constant attention persevered in for weeks at a time.

It is well to bear in mind that the treatment suitable for atelectasis in the new-born may be advantageously employed in pneumonia. That if an infant at any time fails to breathe actively, has a feeble cry or is cyanotic, we should seek to remedy the difficulty by clearing out the nose and throat, slapping the chest and back, and applying cold water

to the back of the neck to stimulate the pneumogastric directly or indirectly by cold applications to the chest, or by inflating the lungs mechanically, the physician breathing directly into the child's mouth; or by the cautious and intermittent use of a mild current of electricity, one pole being applied to the nape of the neck and the other over the sternum. It must be remembered that respiration may be arrested by a strong current.

Similarly we may obviate or overcome collapse of the lobules, and thus diminish the chance of pneumonia. Emetics will assist us and accomplish the same object by causing emesis and thus ridding the tubes of a large part of their contents. No remedy is so valuable in this regard as ipecac. The syrup may be given in large doses at short intervals, for the quantity given is immaterial since it will all be vomited. For a child under five years the dose should be at least a teaspoonful. If emesis is desired we should not err on the side of giving too little. Time is only thrown away. Ipecac promotes secretion and removes it, so that its action is ultimately soothing.

It is better to keep up a slight and occasional emesis by ipecac in small doses at frequent intervals. For this purpose I employ the following prescription for children:

℞. Acid hydrocyanic (dil.).....minims ij.
Syr. ipecac comp..... .....ʒij.

M. S.—A teaspoonful every four hours.

Ipecac has a most fortunate action and usually obviates the necessity for any other emetic.

In addition, I am in the habit of prescribing calomel in minute doses at frequent intervals. For an infant under one year I give calomel in one-fourth grain triturates every hour until the bowels are slightly moved. A daily enema will then thoroughly remove all intestinal matters which contain, as I have already said, not only the results of digestion, but also large amounts of mucus, pus and, perhaps, blood that have overflowed into the œsophagus from the passages. But calomel accomplishes more than this; it relieves the liver and portal system especially, and in relieving the engorged liver, it acts as a sponge to draw

away from the lungs some of its fluids, thereby facilitating respiration.

In an early stage violent remedies are not indicated, and it may be sufficient to keep the chest rubbed with some rubefacient, such as mustard water or camphorated liniment, after which the good effect obtained should be kept up by a thin sheet of cotton wadding, applied before and behind.

Where, however, there are indications that the lobules have been invaded, we should lose no time in putting on the oil-silk jacket. This is far preferable to the use of ordinary poultices or cold applications, because the effect is continuous, and has no disadvantages of serious moment. An oil-silk jacket can be made and adjusted in a few minutes. It should be applied closely to the body, extend to and snugly surround the root of the neck, and reach to the free border of the ribs. The inner surface should be lined with thin flannel, or better still, a thin layer of the common non-absorbent cotton wadding. We have now applied to the chest a constant poultice, that needs no renewal, at least for days at a time, and which admits of applications being made beneath it if necessary, while the child runs no risk of a fresh cold. In my opinion, the prolonged duration of many cases is due to the fact that they have renewed attacks of coryza, laryngitis, and bronchitis, because they are in some way exposed to changes of temperature. I have seen successive exacerbations of bronchial pneumonia from the removal of a night cap in the morning when the child's head was perspiring. In pneumonia, where the stomach is irritable, as usually happens, medicine is best given by the rectum. Moderate doses of quinine are well borne in this disease if the quinine be not too diluted. I use the following formula for an infant:

℞. Quin. bisulphat.....gr. xvj
Aquæ distillat.....ʒij
M. Inject from one to two drachms three times a day.

If properly given, and at suitable times, as after the bowels have been satisfactorily moved, the quinine will be well retained.

The urine should always be examined carefully to see whether albuminuria or any organic lesion be present, as the prognosis will be greatly affected by the result; but in any case, and especially if the renal secretions be deficient, or deterioration can be determined by the presence of peculiar casts, epithelium, or their debris, we should lose no time in directly stimulating the kidneys by poultices. Of these there are none better than the flax-seed meal. Lifting the edge of the oil-silk jacket, a poultice should be slipped in and placed over the kidneys. The effect is generally satisfactory, and the urine at once begins to flow in increased quantities. Such a poultice need not be changed for three or more hours, or even longer if the infant is sleeping.

I am not in the habit of reducing the temperature by the use of the warm bath, cold pack, or even by the so-called antipyretics. It is safer, in my opinion, to use diaphoretics, and a cardinal one in my hands is the old-fashioned liquor ammoniæ acetatis, which is quite as reliable as any other, especially for older children who do not object to its sour taste. For infants from one to two years I give a half minim of the tinctura aconite radicis every three hours, until there is remission in the fever. When, however, we have reason to believe that resolution is at hand, a change of treatment is desirable. We have to handle a lung that is burdened with an interstitial deposit of fibroid tissue, and where there may be small areas that refuse to resolve, and are proceeding towards softening and caseation. Counter-irritation is now indicated, and it may be accomplished in various ways, but most easily, perhaps, by the application of the tincture of iodine, in successive stripes, to the front and back of the chest. The child should also be warmly dressed in flannel, and most careful attention given, so that no new cold is taken, since now the bronchi and parenchyma are more vulnerable than ever before.

Much assistance will now be gained by the use of cod-liver oil in some palatable menstruum, and there will be little difficulty in selecting a form that will not be objected to.

The syrup of the iodide of iron may be added to the oil so soon as the child has learned to take the oil readily.

Finally, if with all precautions no steady improvement is noted, a change of air, even if to no great distance, will often accomplish much, and if the climate be mild and the air dry and bracing, we may look for a satisfactory improvement. If, however, at this stage hectic supervenes, emaciation continues, and diarrhœa sets in, phthisis is at hand, and the disease now assumes a new phase, and has ceased to have the characteristics of lobular bronchial pneumonia.

Prognosis.—It will be gleaned from the foregoing that the disease may be mild or severe—in fact, that it may have all grades. Hence, its duration may be short or long. It may resolve in five to seven days, or may last weeks, possibly months. It is held to be very fatal in infants under one year. It is certainly very fatal in children that are rachitic or scrofulous, or over-fat, or weak from any cause. Jurgensen has estimated the fatality at 50 to 60 per cent. (Loc. cit., p. 221.)

Whooping cough is thought to be peculiarly prone to invite a fatal issue in very young children, but I am inclined to think that here we have to deal with tuberculosis more frequently than with broncho-pneumonia. And, indeed, Eustace Smith says that whooping cough terminates not in phthisis, but in fibroid induration of the lung.

Art. II.—The Literature of Antipyrin.*

By VIRGINIUS W. HARRISON, M. D., of Richmond, Va.

Formerly Resident Physician to St. Luke's Hospital.

Nomenclature.—Antipyrin di-methyl oxyquinizin or di-methyloxy chinizen is a proprietary drug, of the sale of which Dr. Knorr, a German chemist, has the monopoly. When we look for its place in chemistry, we hardly know where to place it, for in some respects it is a base, resem-

* Read before the Richmond Medical and Surgical Society.

bling the alkaloids; in others, it is distinctly acid. We must determine its position before we can give it its correct orthography, whether it should end in *in* or *ine*. The former is the one its discoverer uses, I think, and is the one met with in medical literature.

Chemistry.—Antipyrin is a white powder slightly bitter, though easily disguised, very soluble in water and in all ordinary solvents. It is incompatible with sweet spirits of nitre—nitrous acid, being set free—and forms iso-nitroso-antipyrin, which is inert. This chemical change takes place in twenty or thirty minutes after mixture—the liquid becoming bluish-green in color, and in a few minutes an abundant production of crystals is thrown down. If these crystals be allowed to stand for a few hours, we will have the odor of hydrocyanic acid—the presence of which has been confirmed by experiments; but the quantity is so very small (probably less than one-hundred-thousandth part of a grain), that trouble need not be expected from this. (*Therapeutic Gazette*, February 15, 1889, pp. 90–91.)

I have been unable to find anything concerning its *physiological action*, upon which we can rely with certainty, but will give what is thought to be the way in which it acts when I come to give its uses. We know it produces profuse diaphoresis, and allays pain. The only *modus operandi* for these effects which I have seen suggested, is a depression of the nerve centers of the spinal column, causing vaso-motor inhibition.

Therapeutic Uses.—Antipyrin is reported to have been used with success in almost every ailment to which the human flesh has become the unfortunate heir. It is given by some with impunity, without the least fear that the desired result will be obtained, or no damage will be done; it is given by others with reluctance. Fortunately, the reported cases of *poisoning* are rare, but sufficient to warn us that antipyrin has poisonous effects at times; and during its administration the patient should be closely watched, and given small doses in beginning its use.

The first and great indication for the use of this popular

drug is *reduction of high temperature*, which indication it meets with great promptness and satisfaction to the physician, and comfort to the patient. It seems to have no effect upon the cause of the fever, nor does it shorten the length of the essential disease, but enables the patient to rest more quietly and save his strength to battle with the disease, besides lessening the evil which is produced by an elevated temperature. It is given in *malarial, typhoid, rheumatic,*— in short, *in all forms of fever* in which there is not a weak heart or great prostration. Some report that in doses of 8 to 10 grains, it will as rapidly and effectually reduce the temperature as larger doses of 15 to 20 grains, and is far less likely to meet with the unpleasant symptoms sometimes following these larger doses.

Dr. P. S. Pampoukis, (*Gazette Hebdemadaire Science Med.* Aug. 11, 1888), reports five cases of *intermittent fever*, where the patients had become habituated to quinine. He gave antipyrin, and completely cured each of them in five days. He recommends giving the drug during the chill, while others think it better to give it during the fever, and quinine between.

Arsenic in combination with antipyyrin has been used with happy results in malarial fevers by Dr. Frontis. (*Med. News*, December 11, 1886.

The next most frequent use of antipyrin is for *hemicrania, headaches, neuralgias, etc.*, for the relief of which it has gained a very wide reputation, not only among the profession, but among all classes. This application is the one most abused. There seems to be no doubt that it has the power to relieve all forms of headaches and neuralgia, no matter from what cause they may arise. We are very fortunate in having at our command such a valuable remedy. But are we not more liable to forget what has been drummed into the heads of students from time immemorial, viz.: look first for the cause, and remove it, and the effect will cure itself? These headaches are often due to an over loaded-rectum, disordered digestive tract, or want of out-door exercise; and by directing our attention to these causes, instead of to the symptom, we will give more permanent relief, and do away

with the use of a drug which can only give temporary relief, unless the true cause is at the same time removed. This anti-neuralgic power is not confined to the head and face, but acts on neuralgias wherever found, whether ovarian, cardiac, etc.

In the *American Journal of Medical Sciences*, August, 1888, I found the following explanation of the action of antipyrin in *headaches*. In speaking of Dr. Alex. Haig's observations, the author says: "He has shown (*Brit. Med. Jour.*; Jan. 14, 1888), that during a headache, uric acid is excreted in excess in the urine, and probably also exists in excess in the blood; and that as acids have the power of diminishing the excretion of uric acid, it is possible to relieve the cases of migraine dependent on this condition of excess, by a large dose of some acid, as nitro-hydrochloric. The action of antipyrin, now so largely used in the treatment of migraine, Haig explains, (*British Medical Journal*, May 12, 1888), by the fact that the drug acts like an acid, and hence diminishes for the time the excretion of uric acid. He found that a dose of twenty grains raised the acidity of the urine within the first hour after taking it, and that the rise continued and increased for five or six hours more. A drachm taken in three doses caused a marked increase in the acidity of the twenty-four hours' urine, and a decided fall in the uric acid secretion." Mr. Botenham, of St. Bartholomew's Hospital, says, in *Practitioner*, that he has used antipyrin in these cases, and found small doses to give prompt relief in severe cases—no single dose exceeding four grains. This experience embraces twenty-six cases in two months.

Another use of this valuable drug, which is fast gaining ground is to *allay pain during labor*. It may be given hypodermically or by enema. The majority of writers on the use of antipyrin during the *dilatation of the os*, report that the pain is relieved and the contraction of the womb is not interfered with; the patient in some cases falls to sleep for a time, so great is their relief. Dr. J. O. Van Winkle, (*New York Med. Jour.* January 5, 1889), says he has also used it in several cases of labor—giving antipyrin in gr. xv. doses with

spirits of ammonia gtt. xx, every two hours for three doses. The length of the first stage is shortened by its use—the duration of the second being unchanged. He thinks by giving it with a stimulant he lessens the dangers of such large quantities.

Dr. Laget (*Comptes Rendus*, December 30, 1887), reports the case of a young lady who had had several miscarriages. She was taken with labor pains after a pregnancy of five months. He tried enemata of laudanum, administered at intervals during forty-eight hours, without relief. On the third day the pains could not be endured, and he gave an enema of antipyrin, (grains 16 to ʒ iiiss.), which diminished the pain to some extent, but the enema was repeated in an hour. Soon the labor progressed with but slight pain, the patient having no after pains, and passed into a normal convalescence. While these and other gentlemen think it will be a great help to women during labor, Professor Pinzani publishes the following as the result of his investigations. (*Internationale Klinische Rundschau*, March 3, 1889.) Whereas antipyrin diminishes to some extent the severity of the pain during labor, it does so at the expense of the contractility of the uterus, the degree of contraction being less. It takes about two hours for it to exert its effect when given hypodermically, and about four hours when given by the mouth. The doses used by Professor Pinzani in his cases were 45, 30 and 15 grains. He also states that antipyrin causes *diarrhœa in nursing children* when given to the mother during the puerperal state.

I have been unable to find any one else who coincides with Professor Pinzani in this view, as nearly every one lays stress upon the fact, that the contractions of the uterus were either unchanged or rendered more vigorous. This will be a valuable point for our accoucheurs to determine and report upon. If it be true that the pains of labor can be almost annihilated, and the contraction of the uterus preserved, to use the words of another, antipyrin, "would indeed be a boon to suffering womanhood, * * * * that would cause that part of the whole female race to rise up and call its discoverer blessed."

Riviere found the drug to *allay after-pains* in doses of fifteen grains when given by the mouth. A single dose proved sufficient in twelve out of twenty-eight cases, and two doses at hour intervals in twenty out of twenty-eight cases. When it fails, he says, retention of placenta debris or the like, is to be suspected. (*Gaz. Heb. des Sci. Med. de Bordeaux*:—*N. Y. Med. Jour.* Nov. 17th, 1888.)

This drug has also been used with benefit in severe cases of *obstructive and congestive dysmenorrhœa.* It acts as a uterine sedative in severe cases of cramp and colic during menstruation. In a discussion by Drs. Demme, Sée, Windelschmidt, and others, (*Med. Gaz.*, October 15, 1888), two cases were referred to particularly, in which every well known treatment had failed to prevent the most violent pains and colic during eight days of menstruation. Antipyrin was then resorted to—giving morning and evening injections (30 grs., enema at each time) with wonderful success, and no alarming symptoms were observed, but there was profuse diaphoresis and slight ischuria.

Dr. H. Huchard thinks it is positively *contra-indicated during menstruation*, and reports a case (in the *Revue Generale de Clinique et de Therapeutique*, January 24, 1889), where he gave fifteen grains to a woman suffering from violent dysmenorrhœa. The menstrual flow suddenly ceased, the patient had a violent chill and became cyanosed; frequent attacks of syncope followed; the pulse became small and weak, and she complained of great headache. These symptoms caused great anxiety on the part of the physician for the patient for an hour; but their bad effects gradually disappeared. Dr. Huchard thinks he has observed such symptoms on two other occasions, though they were less marked.

There is another use of antipyrin in which great confidence is placed, especially by *some* when everything else has been tried, viz:—in *whooping cough.* In a paper read before the College of Physicians in Philadelphia, January 4, 1888, by Dr. Griffith, and reported in the *Therapeutic Gazette*, February 15, 1888, we find quite an interesting report of his cases in which he has used antipyrin for whooping cough He gives from ½ to 7½ grs. according to the age of the child

with great success, if used in the first stages of the disease. It lessens the length of the disease as well as the duration and number of the paroxysms. He quotes Dr. Sonnenberger (*Deutsche Med. Wochenschr*, 1887, 280), who had ample opportunity of testing the value of this drug during an epidemic in Worms. He used it alone in seventy cases (dose 7½ to 15 grs. to large children, ½ gr. to small, in syrup of raspberries), three times a day. In only five cases were there any complications, and in no case the so-called antipyrin-collapse. Dr. Genser read a paper before the Society of Physicians, in Vienna, (April 13, 1888), in which he says he used it with good results in this malady in more than one hundred cases. In five cases in which there were pulmonary lesions, this method gave negative results. Dr. Laborderie (*Bulletin General de Therapeutique*, May 15, 1888), reports that in eleven cases he obtained a complete cure in twelve to sixteen days. This gentleman gives the drug in from 5 to 15 grain doses to children up to two [?] years of age, and from 15 to 60 grains [?] for elder children and adults He reports also that in a case where there were forty to sixty attacks a day, antipyrin had no useful effect, (*Therapeutic Gazette*, September, 1888, '88). I might go on and mention others who have used antipyrin in pertussis, but the experience of all will be but a repetition of the above.

Again, we find antipyrin to be very valuable in the experience of some in *St. Vitus dance—chorea.* M. Legroux, (*Revue de Therapeutique*, January 15th, 1888), reports that with this drug he reduces the average length of this disease from sixty to sixteen days—the shortest duration being six days; the longest twenty-seven. He gives it in bitter orange peel syrup, (gr. xv. to ℥j), and gives three such doses in twenty-four hours. In the same journal of March 1st, 1889, Dr. Jules Simon, says: Antipyrin is the drug which gives him the best results in chorea. He begins with eight grains, which quantity is increased by eight grains a day, until sixty grains a day are reached. Dr. H. C. Wood (*Ther. Gaz.*, April 1888, p. 248) also uses antipyrin (and antifebrin) in St. Vitus's dance with uniformly good results. In a case shown to his Class, he had given

arsenic for three weeks with no improvement, while after a week's treatment, antipyrin had produced almost complete quiet. Dr. Wood uses much smaller doses than those advised by Legroux, as he does not think it safe to give a child forty-five grains a day. Dr. Boussi, has written an article in *La France Medical*, No. 14, 1888, in which he confirms what has been said above in regard to the value of antipyrin in chorea.

In the experience of Drs. Sée, Clement, Masius, Berhien, and others, (*Therapeutic Gazette*, December, 1888,) antipyrin is used with great success in *acute articular rheumatism*, and it prevents cardiac complications; but Professor P. de Tullis, (*Bulletin General de Therapeutique*, September 15, 1888), claims as results of twelve cases of rheumatism, the following:

(1) Antipyrin, given in doses of 7½ grains every hour for eight hours, increases the pain in acute and chronic rheumatism, and leads to the implications of other articulations.

(2) In acute articular rheumatism, during the administration of this remedy in eight cases, serious pericarditis developed in four. In four other cases endo-pericarditis developed, with subsequent affection of mitral valves.

(3) In one case of chronic articular rheumatism, transient albummuria was produced, which ceased as soon as the administration of antipyrin was suspended.—*Therapeutic Gazette*, December, 1888.

Antipyrin is used also in *asthma*. Dr. Dodge tells of an interesting case in the *New York Medical Journal*, February 18th, 1888. A laborer, sixty years old, suffered intensely from this distressing disease. A number of drugs had been tried and failed. He then gave antipyrin in 15 grain doses, three times a day for the first few days. Afterwards he gave it in 5 grain doses every three hours during the day, and 18 grains at 9 P. M. and 3 A. M. This man was under antipyrin treatment for one week, when the paroxysms ceased; he had suffered from asthma for three years.

I will report a case in my own practice, not only to speak of its good effect in asthma, but to call attention to an un-

desired effect. I was called to see a lady one morning at 5 o'clock, who told me she had suffered so much with asthma during the night, that she fully expected to die, if not relieved very soon. She was about four a and half months pregnant. I gave her five grains of antipyrin three times a day for three days. On the third day it was discontinued, as the paroxysms had ceased, but in stopping the asthma, I also *stopped the movements of the fœtus.* At my visit on the next day, (fourth) I was glad to hear her say she could feel some movements, but they were not as vigorous as before. I think, therefore—if we can judge from one case—that antipyrin should be used with great care during pregnancy. A number of writers have spoken of this effect of lessening the motions of the quickening fœtus; but there is reason to fear that in quieting the movements of quickening we may at the same time destroy the life of the fœtus.

Still, there are other diseases in which antipyrin has been used. I will only mention them, as I have already taken up too much of your time. It has been used in *hæmorrhoidal ulcers, sciatica, epilepsy, sun stroke, diabetes, diphtheria, corneal opacities, nocturnal emissions, etc.*

ART. III.—**Relation of Orthopædic Surgery to General Medicine.***

By F. LE ROY SATTERLEE, M. D., Ph. D., Etc., New York, N. Y.

I have been wondering ever since I received the flattering invitation of your Board of Supervisors to address you this afternoon, why I should have had the honor of your selection. Orthopædic surgery is, from its name, a specialty of general surgery, and yet you ask a *physician* to tell you what he knows about orthopædic surgery. Very likely it is because you know it must be *well* spoken of, and the diffidence of a surgeon might prevent his properly eulogizing his craft.

There is a difference between physicians and surgeons,

*Being the Annual Address delivered before the Supervisors and Trustees of the New York Orthopædic Dispensary and Hospital.

as the latter claim to have the *artistic* branch of the remedial profession. Their art is somewhat allied to the sculptor's, and more nearly so in the special branch which we celebrate to-day. To make "right," as far possible, that which is wrong in form, is one of its results. I am sure that you are glad that our orthopædic sculptors can do so much in their art by a sort of "modelling," rather than by "carving;" in fact, your skillful chief surgeon seems almost able to *orthopædize* some of his human models by *moral suasion.*

It is, perhaps, fortunate for their labors that these surgeon-artists are *conservative*, and maintain the old ideas of the right human form into which they must bring their subjects—if they took the *fashion plates* of to-day from which to deduce the *ideal*; but the thought is too complicated.

I am sure your true reason for asking an expression of opinion from a general practitioner may be divined, when we think how anxious we all are to know what others think of us and our work.

Well, your Dispensary and Hospital may be proud of its reputation, which is now as wide as two continents and as honorable as the practice of medicine itself.

You may not all know that the word *orthopædic* has been used for about 150 years; and the celebrated French surgeon, Andry, who invented the word to describe his treatise on the different methods of preventing and curing deformities in children, published in 1741, may be called the father of Orthopædic Surgery. It will be seen that he only undertook to straighten crooked children, but afterwards the treatment of adults was included under this specialty. Previous to Andry, very little was written or known about the treatment of deformities. Hippocrates, about 400 B. C., makes the first mention of any means to correct such diseases, by what he called "*gibbosity*," a name which seems enough to condemn it, but which was in reality a very crude and rough method of treatment. Then Ambroise Paré wrote about diseased spines, and invented the first splint or corset for it. Glisson, in 1650, gives the first

method of treating spines by suspension; and Scultetus, in 1656, and Heiser, in 1739, makes mention of some devices for the treatment of deformities, in their surgical writings. Then comes Andry's classic work, and the development of a system of orthopedy as a special department of general surgery. After this we find important improvement in the methods of managing spinal curvature, by Percival Pott, of London, David, of Rouen, Le Vacher de la Fentrie, also of France, Schmidt, of Marburg, and some others. The next notable advancements in orthopædic surgery are recorded in Little's Work on Deformities, published in this country in 1853; and from that time until the present, American surgeons lead all other nations in original plans of treatment and improved apparatus for straightening, correcting and curing all deformities of the human frame.

Such names at once recur to us as Henry G. Davis, of Boston, Chas. Fayette Taylor and the late James Knight, of the Hospital for the Ruptured and Crippled, in this city, and Joseph Bryan, of Kentucky, the first to apply the plaster jacket for the treatment of Pott's disease of the spine, in the summer of 1874.

Other departments of the orthopædic field of surgery had been worked by such well-known men as James R. Wood, Buck, Markoe, Andrews, Brower, and more recently, Yale, Stillman, Wyeth, M. J. Roberts, Judson, Gibney, and a host of others, who now reign over the orthopædic kingdom. Last, but not least, let me pay a merited tribute to your own Surgeon-in Chief, whose connection with your Hospital, almost from the beginning, has, through the co-operation of your Board, been the chief means by which the Institution is now steadily advancing in reputation and usefulness. His labors in the interest of science and charity will always be reflected from the Hospital, where so many have been the recipients of his tender care and skill.

It gives me peculiar pleasure to speak thus of my old friend, who was my classmate twenty years ago, when, side by side, we listened to the same lectures in the old University Medical College, in 14th street, and where he was first impressed with the imperfect knowledge and inadequate

treatment of the diseases to which he has since devoted his life and energies, with a success that we are all ready to acknowledge.

We are here to-day to celebrate your anniversary—a meeting which is always important as marking another year's progress in the work and usefulness of this Hospital. It is, however, doubly interesting this year, as this Institution is to-day 21 years old. The infant project has developed into sturdy manhood, and all the loving hearts and hands that have so faithfully watched and tended it are gathered here to wish it many happy returns of the day, and a long life filled with usefulness and tender deeds of charity.

I have hastily said *all*; indeed, we wish that were true. This is one of the places where memories rise, in which a sense of loss is mingled with a just pride that *noble* spirits were among us, and that we have the opportunity at least, of proving worthy successors to their unselfish and wise labors.

A little Dispensary, in 1846, the devoted labor of a few ladies and gentlemen, could hardly hope to do more than a dispensary duty, giving the most recent and skilled treatment to the poor, *free*, and devising some methods of providing each with the best instruments or apparatus for his improvement, and which would be otherwise unattainable.

Here, we must remember, one of the great difficulties besetting this specialty, and which required efforts worthy of the *highest praise*, because so trying to the patience, and so seemingly thankless at the doing; that is the constant struggle with ignorance and prejudice to introduce the treatment and appliances; to induce parents and guardians to receive, adopt, and properly acquiesce in the treatment which their poor, distorted, suffering little ones needed—oh, so badly—and the results of which, if fully received, were to change the possibilities of an entire lifetime. After winning the confidence of parents, with a labor that only loving sympathy will endure, it became apparent that there must be provision for the constant care and proper sustenance of little patients, and Mr. Theo. Roosevelt, Mr.

Howard Potter, and Mr. John L. Aspinwall furnished money, and, with wise methods, provided permanent accommodations for the little ones, and they continued their benefactions, as the requirements grew, until full hospital arrangements, in two well appointed wards, with trained nurses, came under the charge of your skilled orthopædic surgeons.

The generous founders of these hospital facilities gave what was more valuable than their money; they gave their time, their personal counsels, and their influence, to sustain and compel a success. From such examples, the sympathies of others became vitalized and concentrated, and the Institution has had, to this day, a continuous line of generous fostering care bestowed upon it.

Now we see it as it is, a source of gratitude to hundreds who are living in the enjoyment of benefits received; and of just gratification to its unwearied patrons and benefactors, who can see an ample reward for their efforts in its behalf. This is the stimulus which will carry it forward in a generous growth to meet the wants of the ever-increasing number of those whose remedial misfortunes cry aloud for a help which can be worthily given.

Let the noble charity go on; and your happiness must grow in a work that follows, so nearly, at least in effort, the divine example of causing the lame to walk and the crooked to be made straight.

Art. IV.—Sanitation and a National Quarantine.*

By HOWELL B. GWIN, M. D., of New Decatur, Ala.

I desire to treat first of National Quarantine. Quarantine has been defined to be: "The administration employed to determine the presence or absence of the causes of infectious or contagious diseases, and to secure the removal or destruction of such causes." Science furnishes the data and

* Read before the Morgan Co., Med. Society, Hartselle, Ala., March 7th, 1889.

government furnishes the power for its execution. There can be no question that the union of science and government will prove a great benefit to mankind in checking and suppressing such diseases. The specific question among us is: Should this quarantine be under the control of the State, or of the Federal Government? I answer, primarily under the control of the Federal Government; subordinately, under the control of the State. All powers should be recognized, but the supreme power should be national.

The two leading diseases that invade our country—cholera and yellow fever—have their origin in foreign countries, notably in India, Cuba and Brazil. They are foreign foes, liable to enter any of the ports along our long sea-coasts. As a common enemy, war should be declared against them by our common government, even as that government has power to declare war against other enemies. A national government must assume some responsibilities, among which are those affecting the physical and pecuniary welfare of the people as a whole; and must, therefore, take the proper and necessary measures to protect its subjects against pestilence and famine, by such wise and prudent acts as the necessities of the times may seem to warrant. Failure to do this gives rise to confusion and disaster, and calls down just condemnation.

Shut out the germs of these and other foreign diseases, and we get rid of epidemics. This exclusion is proposed by a quarantine. Some may object that quarantines have not been effective; but this seems due to their imperfect execution, as well as to the fact that the principles of the system, like those of other things, have necessarily been of gradual development. No law is absolutely perfect in its operation. If we can preserve its aim, direct its tendency, perfect by degrees its operation, and so reduce evils to their minimum, this system, as others, is justified. Two things characterize these specific poisons—their *portability* and their *localization*—and this fact makes it possible to prevent its importation or its wide-spread propagation.

This question is both national and international. Each nation, bound to protect itself, is fast coming to the steady

and stringent use of this agency; and this in turn will bring about a concerted policy among the advanced nations to stamp out contagious and infectious diseases. And more than this, by and by, these nations will come to the aid of those countries in which these dangerous diseases are native and almost impregnably entrenched. "The war will be carried into Africa." An international, scientific teaching and governmental law will ultimately address themselves to the suppression of specific poisons in endemic regions—that is, the primal homes of these infections and contagions. The very ships will be cased in metal in order to prevent them from being permeated by the specific poison. Self interest, as well as philanthropy, will prompt this co-operation, and scientific sanitation will give direction to its success. The Russian policy of burning an infected town in 1878 may seem violent, impracticable and useless, as a rule, but it is only the primitive method—the *avant courier* of a more humane, but not less effective method which intelligent scientific control must eventually employ. "The greatest good to the greatest number," holds good here as elsewhere in political economy. The hearty, active support of the people is necessary to efficiency. When quarantines have been broken, or in any way lost their rigor, fatal results have followed. As Dr. Koch said of the poor quarantine in Italy in 1884, "half measures are without real results." "Efficiency," says Dr. Hamilton, "depends on the honesty, faithfulness and patriotism of the inspector." The disinfection and thorough fumigation of every vessel from dangerous or suspected ports are necessary to immunity. Cholera has frequently been kept from the United States by rigid quarantines.

Land quarantine is likewise necessary. It may have an aspect of severity, but what is this compared to the cruel ravages of the disease. If a State or the National Government fail to establish a proper quarantine, what can we expect but the universal local or "shot gun" quarantines, which of late were so absurdly and injuriously prevalent throughout the South. Medical inspection of travellers and of every transporting vehicle, and especially of baggage

and freights, together with a faithful police and a quarantine station beyond the limits of the city or town—these constitute, in essence, the land quarantine. Now, even this quarantine, as well as the sea quarantine, while not trespassing upon any of the functions of State officers, but rather securing their co-operation, may be wisely and most efficiently managed by the General Government. "A sanitary cordon"—which is a vigorous isolation (by soldiers) of a pestilence-stricken place from the country around—was established by the United States Government, in 1832, along the Rio Grande, in Texas; camps were established in which those exposed were placed on probation till all danger had passed, and thus immunity was secured. The National Government should have general charge of these quarantines. A National Board of Health which once served so efficiently, four years, from 1879 to 1883, should be re-appointed,—for its control and suppression of epidemic diseases, and the value and variety of its investigations, and its methods of prevention of pestilential disorders received the grateful acknowledgment of multitudes of citizens and of many scientific men in all parts of the world. The reasons for this are these: In the union of all the States, there is greater wisdom and skill, greater resources, greater power, greater harmony of action as well as economy, speedier and more satisfactory results, and more direct co-operation with foreign governments.

Let us now consider the cognate theme which deserves a larger and distincter treatment than can at our present meeting be given to it. Here I can merely be suggestive.

Sanitation.

Hygiene is the science of health. Practical hygiene is the art of preserving health. Sanitation is practical hygiene. The Mosaic law gives us the true basis of sanitation. These laws, so full of elaborate directions, were illustrated in the wonderful preservation of the Israelites, both in their wilderness journey at the time of their institution, and in all their subsequent history in Palestine. They cannot be improved upon. They are: scrupulous attention to cleanli-

ness, the isolation of the sick, and extreme care in the use of wholesome articles of food and drink. By observing these, the Jewish Commonwealth enjoyed a remarkable immunity from epidemic diseases; by violating these, that people called down disaster upon them. The filthy habits of later, even Christian nations, have often invoked upon them terrible scourges.

Filth is a true quartermaster of disease. Both yellow fever and cholera in their native seats are primarily caused by specific miasmata from the tainted soil. What produces the poison there, *will feed it here.* Local conditions give potency to the poison. Certain harbors and foreshores of our Southern coast, and alluvial districts in hot seasons, are peculiarly favorable to the development of the implanted poison. Take care of the conditions at home and abroad, and the disease will take care of itself.

Two things must be kept in view. (1.) Sanitation to prevent introduction, and (2,) Sanitation to limit the diffusion of infectious and contagious diseases. Who can estimate the wholesale sacrifice of human life through ignorance or neglect of the simplest means of preserving health and averting disease? More lives have been sacrificed to the neglect of these means, than have been saved by the most skillful medical treatment. It is the bounden duty of the physician to be able to recommend with authority the measures to be adopted to preserve the health of persons of all ages, especially when congregated in large numbers. For instance, how much disaster, from typhoid fever, any physician could avert by knowing and changing the environment. But, alas, how much indifference to this is too often shown. How much the common people are indebted to that "vis medicatrix naturæ"—that power inherent in the human frame to resist the assaults of poisoned soil and air and water and food, or to right itself when suffering under severe disorders—that power to which is often due the success of foolish quacks or of wise non-interference. No inconsiderable part of the professional duty lies just here in this preventive treatment, which must sooner or later be recognized by the laity as entitled to the highest pecuniary

remuneration, even as the office advice of a lawyer who prevents disastrous litigation receives acknowledged and satisfactory compensation.

The true physician must be acquainted with the best deodorants, disinfectants and antiseptics; must know the laws and appliances of cleanliness and ventilation, so as to interpose for the shielding of working men, of school-children and of audiences. He is a public benefactor. If he lives in the country, let him advise the extinction of those impurities peculiar to rural homes, chiefly, stagnant pools, ponds, marshes, the effluvia from cesspools, farm-yards, stables, pig-sties, or heaps of manure. If he lives in the city, his force will be set against emanations from manufactories, heaping up the street filth, house dust and ashes, unconsumed chimney smoke, filthy vaults and defective sewage, etc., etc. For the welfare of families within or without corporate limits, our profession should become tutors and exemplars. To this end three things seem necessary. Strictest attention should be paid—

First, to man's environment—such as climate and soil, the site, character, and arrangement of dwellings, the quality of the air he breathes, the drainage and sewage, and the cleansing of the entire premises and its vicinity. Strictest attention should be paid—

Secondly, to a man's personal health—such as relates to his food, water, beverages, clothing, habits, sexual relations. Strictest attention should be paid—

Thirdly, to what concerns the prevention of disease, the preservation of health in infancy and childhood, the sick chamber, the destruction of poisonous matter, etc., etc. To put these things in different form, true sanitation involves the study and practical application of the teachings of natural conditions, of social and corporate relations, and of personal duties, physical, mental, and moral.

Nothing is so costly as disease; nothing so remunerative as the outlay which augments the amount and value of human labor. Much has and more will, *must* be done. In the city of New York, both small-pox and typhus fever are now considered to be under perfect control. In India it is

now ordered that all the water used for domestic purposes shall be boiled—a lesson the Chinese have taught us for an indefinite period. The total destruction of putrefying fæcal and organic matter is now universally demanded by intelligent sanitarians. Elementary treatises on hygiene are now being taught in many of our schools and colleges. Sanitary conventions and journals are widely disseminating information. Medical societies, like ours, are doing the same; while they, with increasing emphasis, are demanding the more faithful and capable discharge of duty on the part of health officers.

Let us, my medical brethren, take courage as we step forward to do our part in this grand and philanthropic work of lifting up to prolonged health, happiness and usefulness our race, whose every member should fulfill Juvenal's ideal of a man, "Mens sana in sano corpore." Then shall we stand among the crowned heroes of mankind, with the laurel wreath pressed by grateful hands upon our radiant brows.

Clinical Reports.

Treatment of Gall-Stone Successful by Massage or "Pumping the Liver."

By J. A. COMINGOR, M. D., of Indianapolis, Ind.

As the treatment of gall-stones is now being freely discussed in the medical journals, I have a case in mind that might be of interest to the profession:

The patient, a doctor, 50 years of age, from exposure in November, 1885, was suddenly stricken down with the usual symptoms of obstruction of the gall-duct. Of course, jaundice followed. He was treated eleven weeks before I saw him.

From his attendants I received the history of his case and their treatment. The treatment was so full and complete, that there was nothing I could think of to suggest, in the therapeutic line that they had not used. I therefore suggested, that we apply the principle of massage to the case.

This we did, and after we were through with the movements, it reminded me so strikingly of pumping, that I called it "pumping the liver." I proceeded by placing my hands on the ribs over the liver, making firm and quick pressure downwards letting up and repeating, say for five minutes, and then requested that it be repeated two or three times during the night. Up to that time no trace of bile had been discovered in the dejections. The following day a large quantity of dark bilious matter passed from the bowels, soon followed by scores of gall-stones. Improvement set in from that day and continued for at least a fortnight, when from some unknown cause another blockade was on hand. The pumping process was resorted to again with the same desirable result as on the former occasion. After this the patient experienced no further trouble and made a complete recovery.

The principle of the treatment and its application laid down are so simple, and the results in the case above reported were so satisfactory, that the treatment suggested seems worthy of further trial and reports from those who may adopt it.

Original Translations.

From the French. By R. M. SLAUGHTER, M. D., Theological Seminary, Va.

Origin of Tetanus.

Dr. Verneuil has recently read an important paper before the Academy of Medicine, in which he reaches the following conclusions:

1. Tetanus, which is transmissible between animals of the same species or of different species, is equally so between man and man, man and animal, and animal and man. It is probable that several domestic animals are capable of infecting man, but this is only completely proven in the case of the solipeds.

2. Contagion from the tetanic horse affects a wounded man directly or indirectly, and is consequently immediate or mediate, the latter being much the more common.

3. The intermediate agents between the affected animal and the man infected, a greater or lesser time afterwards, are very variable and sometimes multiple. Every object of

whatever nature which comes in contact, passing or prolonged, with a tetanic horse may become a tetaniferous agent by receiving a virulent deposit, giving it a temporary asylum.

4. Every object placed in contact with a tetaniferous agent may become in its turn tetaniferous, a sort of circle of infection which may go on increasing indefinitely.

5. In this circle may be found both the inanimate objects and living beings which have been in contact with the tetanic horse or with objects soiled by him. The inanimate objects are in no danger, of course, from their dangerous deposit, and the same may be the case with men and simply tetaniferous horses, though they are in constant danger of traumatic auto-inoculation if a door of entrance is opened for the poison.

6. The wounded man may then contract tetanus from most of surrounding objects coming in contact with his wound; but observation and experimental research show that the most dangerous objects of contact are horses, and all that belong to or depend upon them; and next the cultivated soil and some of its products; consequently the discussion which has arisen concerning the origin of human tetanus between the advocates of the equine origin and of the telluric origin. Agreement on the subject would be easy if one of these origins would only be subordinated to the other, and it be recognized that if the soil possess an undeniable tetanigenic virulence it owes it to contamination from the tetanic horse.

To sustain the fact that of the double virulence of horse and soil the priority belongs to the animal, besides a comparison with other infectious diseases, three chief arguments may be invoked:

(*a*) The summary of the various occupations shows that those most exposed to tetanus are those who are habitually in contact with horses.

(*b*) Inquiry as to the nature of vulnerant agents and the circumstances preceding, accompanying or following wounds, results in the knowledge that they are soiled in a great number of cases by the horse or by manured earth (*terre fumée*).

(*c*) The topographical distribution of equine and human tetanus shows the strong numerical relationship existing between the two—the first, at least in our climate, being always more common than the second, and the second diminishing and tending to disappear as the first diminishes or disappears. Hence, it is evident that the true prophylaxis of human tetanus is in the hands of the veterinarians.

If, in 100 recent and well-observed cases of human tetanus, the origin is investigated in accordance with the above established principles, it is found that the cases conforming to the equine theory constitute the great majority, and that the negative cases are too small in number to disturb seriously the doctrine.

The definite admission of the infectious nature and animal origin of human tetanus certainly lead to important practical deductions.

The surgeons and veterinarians will, without doubt, be the first to profit, but the hygienists should be equally interested. Both should unite to establish that tetanus belongs to that class of virulent diseases to which are applicable certain dispositions of the law.—*La Tribune Med.*, April 4, 1889.

Exalgine.

Exalgine is chemically the orthomethyl acetanilide. It occurs in the form of fine needles or large white tablets. It is little soluble in cold water, much more so in hot water, and very soluble in slightly alcoholized water. In its physiological effects it resembles antipyrine. Its analgesic effect, which may be obtained from doses of five to seven grains at one time, or from six to ten taken in two doses in twenty-four hours, is marked, and apparently superior to that of antipyrine, and this in all forms of neuralgia including visceral neuralgias. This therapeutic action has been obtained without, up to the present, the occurrence of those phenomena of gastric or intestinal irritation, rash or cyanosis, which sometimes follow the use of antipyrine and antifebrin.

Exalgine is eliminated by the kidneys lessening the quantity of urine excreted, and acts like the other antithermics of the same group upon diabetic polyuria, diminishing the amount of sugar and quantity of urine discharged in twenty-four hours. Exalgine is, to sum up, a powerful analgesic, and superior to antipyrine in that it is more active, acting in much smaller doses.

If it be compared with the other antithermic and analgesic compounds of the same group, it is found that, like them, it is at the same time antiseptic, antithermic and analgesic, but in the last of these therapeutic actions it appears to be the most powerful.

From our researches, upon the whole, of this series, it would seem that a law may be formulated which will permit the appreciation *a priori* of the dominant physiological

properties which characterize their action. Antiseptic properties belong especially to hydrated derivates, phenol, naphthol, etc. Antithermic properties are chiefly dominant in the amidogen derivates—acetanilide, kairin, thallin, etc. Those with the strongest analgesic properties are the amidogen bodies, in which for the hydrogen atom has been substituted a molecule of a fatty radical, antipyrine, antphenetidine, analgine.—(*Bull. Méd.*) *Le Praticien*, May 6, 1889.

Salicylate of Mercury.

This compound was brought to the attention of the profession by Dr. Silva Aransso in a communication to the Société de Polyclinique Générale of Rio-de-Janeiro.

1. It was well borne by the stomach, occasioning neither gastralgia, enteralgia, nor colic, as the other mercurial preparations frequently do, with the exception of the protiodide and the tannate, which have been recently largely used.

2. It never produces mercurial stomatitis.

3. Given internally, it acts more promptly than any of the salts of mercury now in use. Upon this recommendation, Dr. Carl Syadek, of Kiew, gave the salicylate of mercury in twenty-five cases of syphilis, and his experience confirms that of Dr. Aransso.

More recently, Prof. Scrimmer, of Budapest, has had made for him in Paris pillules of the salicylate, containing each a centi-gramme, (gr. $\frac{1}{6}$). He gives five of these pills daily. Dr. Arawjo gives daily three pills of twenty-five milligrammes (gr. $\frac{3}{8}$) each. The dose, should at first be small and gradually increased.—*Le Progrés Med.* March 9, 1889.

Salicylate of Mercury in Treatment of Gonorrhœa.

Prof. Schrimmer advises (Wien. Med. Wochenschr, No. 8, 1889,) injections of the salicylate in both acute and chronic gonorrhœa.

℞. Salicylate of mercury.....gr. $\frac{1}{6}$.
Distilled water.....ʒiij–ʒiij

M.—S.—Inject 3 times daily.

The discharge is stopped in two or three days, and on leaving off the injections the discharge begins again a little, but it is only mucus and disappears of itself in a few days. In the chronic form the injection should be stronger.

℞. Salicylate of mercury .....gr. $\frac{5}{6}$.
Distilled water.....ʒiij–ʒiij—M.

After six or seven days' use, there remains only a morning mucous discharge, which is very difficult to make disappear.

Anorexia and Atony of the Digestive Tract.

For the above, Dr. Bompard recommends the following formula for each pill:

℞. Amorphous quassine.....gr. ss
Sulphate strychnine.....gr. $\frac{1}{64}$
Arseniate of sodium.....gr. $\frac{1}{64}$
Ext. of gentian.....gr. j

M.—Make one pill or capsule. S.—Take two pills one hour before eating to increase the appetite.

In paresis of the digestive tract they should be taken immediately after eating.—*Le Praticien*, March 25, 1889.

MEDICAL SOCIETY OF NORTH CAROLINA.*

First Day—*Afternoon.*—Dr. Julian E. Wood, Chairman of the Committee of Arrangements, called the 36th annual meeting to order at Elizabeth City, N. C., April 16, 1889.

Rev. E. P. Wilson, of the Methodist Episcopal Church, South, opened the session with prayer. Vice-President Dr. Geo. W. Long, of Graham, introduced E. F. Lamb, Esq., who delivered the address of welcome, to which Dr. Long responded, and then declared the Society open and ready for business.

Dr. T. D. Haigh said that he saw the President, Dr. W. T. Ennett, yesterday in consultation with Drs. Wood and Ellis at Garysburg. He deeply regretted not being able to preside over this body. He was advised not to attempt to come, but to return home to-day.

Dr. Haigh introduced this resolution, which was unanimously adopted:

Resolved, That this Society has heard with sorrow of the sickness of our President, Dr. W. T. Ennett, and that the Secretary be requested to tender to him, by telegram, our deep sympathy, expressing the hope that he will soon be restored.

Report of Section on Practice of Medicine.—Dr. H. P. Murray, of Plymouth, Chairman, stated that none of the four assistants in his Section were present, but hoped some would come on the evening train. He then proceeded to read his report on the **Treatment of Typhoid Fever.**

Dr. Thos. J. Moore, of Richmond, Va., Fraternal Delegate

* Compiled from *North Carolina Med. Jour.*, May, 1889.

from the Medical Society of Virginia, was invited to take part in the discussions.

He expressed want of faith in the germ theory, which led to pernicious medication, and had done infinite harm. He thought we were going wrong in regard to typhoid fever, and other diseases. He did not refer to the surgical department, but to those physicians who were always trying to discover some germs, and whose treatment was based on the assumption that they existed.

Dr. Murray approved Dr. Moore's conclusions in the management of typhoid fever.

Dr. T. D. Haigh, of Fayetteville, said that in his section there are very few cases of typhoid fever, and his experience has not been very great, especially of late years.

Dr. J. A. Hodges, of Fayetteville, coincides in the views of Dr. Moore as to the tentative and supposititious treatment of typhoid fever; but criticises the fact that a specific germ is established for this disease, as would seem apparent from Dr. Murray's paper. Dr. F. A. Billings, a sensational microscopist, has affirmed that he discovered one, but the concensus of opinion is to the effect that while a characteristic bacillus has been discovered which is always present, it is not specific and will not stand the test of inoculation from the pure culture of the bacillus. This isolation of the germ, so far as determined, serves only as a positive sign of diagnostic value, and enough of its origin and history is not known to influence the antiseptic treatment of the disease, in his opinion.

Dr. Geo. A. Foote, of Warrenton, said as to typhoid fever he has had vast experience. He studied with an uncle who had on his plantation about 70 negroes; out of these 43 had typhoid fever, and 27 died. He went to his father's plantation and had the disease himself and got well in thirteen weeks. No one else on that plantation had it, although his room was visited daily. What became of the germ that gave it to him? If the disease is contagious and is produced by a germ, why did not somebody else have it? Those who advance these theories are running the thing wild. In one of the last journals he read that they are forbidding a man to lick a postage stamp for fear of getting a germ. The most important thing after all is the treatment of typhoid fever, and not the cause. Why should a germ produce scarlet fever in one case and typhoid fever in another, etc.? If there is a germ in one instance, you must admit it in all. A recent work on antiseptic treatment says you must not touch a

wound without washing for five minutes. He cannot believe in the germ theory; it is beautiful on paper, but there is no end to it.

Dr. Thos. F. Wood, of Wilmington, hopes it will not go on record that we are opposed to antiseptics in surgery or in practice. Whatever may be our opinion as to the specific bacilli of any disease, one thing is certain, that modern aseptic and antiseptic means have been the agencies by which all of the successful laparotomies and all of the visceral surgery have been done. But it is a little wide of the question to introduce surgical antiseptics. In reference to typhoid fever, we will venture to say that if we took either one of the gentlemen who has made remarks upon the subject, and gave each one of them a patient side by side in the wards of a hospital, when they came to treat these patients they would treat them with common sense, just as if there were no bacilli—the theory would not enter into their minds. After all, when we are discussing these questions, there are always two distinct branches of the subject. First, that which makes an effort to find out the origin of the fever; and, second, that practical part which attempts to elucidate the principle upon which the disease must be treated. In all the text-books on the practice of medicine, however much the authors may be convinced of the bacillary theories of the origin of typhoid fever, you will find that the treatment is not based upon the germicidal properties of medicines, but upon the mass of clinical data. Since the great works of Magnus Huss and of Geo. B. Wood, and others of that date, there has been very little advance made in the treatment. We had great hopes from antipyretics; by reducing the hyperpyrexia we hoped to cut short the disease. That remains unproven. Whilst statistics are very difficult things to interpret correctly, still when they are brought together we find that the patients which have been treated the most conservatively will show the best results, and the results will not be in the direction of any dogmatic theory.

Dr. L. G. Broughton, of Reidsville, said that but for the fact that doctors will differ, he should be very much surprised at the remarks of Dr. Moore and others, for the younger members of the profession are to-day filled with the germ theory. Of course if this is experience, it will do good; but if there is one theory in which he is an ardent believer it is that of germs. Some time ago, during an epidemic of fever in a town in Pennsylvania, Dr. Marvin was sent for to determine the cause. He was about to give up

the search in despair, when he thought of the reservoir which supplies most of the town with water. He went to this reservoir with his microscope, and found the typhoid germ which is to be found in all cases of typhoid fever. The question was raised, Where did this germ come from? In the winter previous a man was brought to the town suffering with typhoid fever, and was put in a home situated on the hill beyond the reservoir, and his excrements were thrown out on the snow that was at that time covering the ground, and this snow melted and passed into the reservoir. This is the case with many epidemics. He believes, with Prof. Hough, of Philadelphia, that a specific germ generated is in the bowel. He has tried sulpho-carbolate of zinc in 2-grain doses with the best results—not only in typhoid fever, but in all cases where the source of infection is from a germ generated within the gastro-intestinal tract. His experience has not been great, but he is delighted with it thus far.

Dr. Joseph Graham, of Charlotte, said that so far as the germ theory is considered we have to go a little out of our way, whether we are on one side or the other. The theory is entirely in its infancy, and very often after reading an article he feels that he is on that side, and when he reads an article on the other side he is as well satisfied that he is on that side. However that may be, if it be not true, it certainly has given an impetus to surgery and to the treatment of all diseases, and it is a good lesson in cleanliness. As regards the germ of typhoid fever, it has not been discovered. He has not been able to find whether any practitioner cuts short well authenticated cases or not. While antiseptics have been of great use in many cases, they have been much abused in a number of cases. He remembers a patient he was called to see in company with a doctor who was carried away by the treatment with antipyretics It was a case of collapse from poisoning with antipyretics. If we were certain of the germ of typhoid fever, we do not know exactly what remedy we would use to kill it and at the same time let the patient go free. If we treat it with that prince of antiseptic remedies, bichloride of mercury, we find that we cannot even cut short a case of gonorrhœa with it.

Dr. A. G. Carr, of Durham, said his treatment of typhoid fever is—

℞. Naphthalini .... grs. vj
Pulv. carbo. ligni.....grs. xij
Quin. sulph .....5j.

Mix. Make twelve capsules. S: From 3 to 6 capsules—all in the morning.

Antipyrin, grs. v., in compressed tablet, and generally in the afternoon. Give if fever rises high, as generally told by headache. One quart sweet milk daily.

Dr. Murray is glad that Dr. Carr somewhat takes side with him on the use of naphthol, and also on the antipyretics. He did not mean to state as a fact that the germ theory had been proved correct, but simply wished to draw out the opinions of the members and also to give his experience in using antiseptics.

Dr. Julian M. Baker read a communication from the Academy of Medicine, Raleigh, conveying the resolution of respect to Dr. R. B. Haywood, which was ordered to be spread upon the minutes.

Dr. J. M. Baker, of Tarborough, said he had not the annual reports of the Society's Conventions for the years 1866, 1867, 1868, 1870, 1873, 1874, 1883, and 1884, and any one having those numbers would confer a favor by forwarding them to him.

First Day.—The *evening session* was called to order at 8 o'clock.

The Chairman appointed to fill vacancies on the Board of Censors: Drs. W. L. Crump and George W. Purefoy.

The *President's Address* (Dr. W. T. Ennett) was read by Dr. George W. Long, in the Chair.

The Chairman, Dr. George W. Long, said that the First Vice-President, Dr. W. J. Jones, of Goldsboro, has arrived, and turned over the gavel to him.

Dr. J. M. Hodges read his paper on **Microscopy.**

Dr. Paul B. Barringer, of Davidson College, said that a number of the members of the Society have stated that they were startled that men like Drs. Foote and Moore should doubt at this day the significanee and true merits of the germ theory of disease. Bear in mind that both of these gentlemen have been practitioners most of their lives in neighborhoods sparsely settled, in rural districts in the main, and that their teachers from whom they acquired these views were men whose medical experience had been derived from cities. Now, as we know it is not the germ *per se* which is the pathogenic disease, but the result of the germ. It has never been claimed that bacteria in themselves cause trouble; it is only claimed that they generate within the body, and from poison which is the cause of the disease. There is a close connection between crowded cities and pathogenic generation. Taking normal atmospheres, whenever the carbon dioxide is increased to six or eight in

100 it becomes dangerous, whereas the same increase of carbon dioxide is absolutely unrecognizable. In other words, the difference between air contaminated by chemical carbon dioxide and that which is caused by respiration is not due to the difference in the carbon, but in the atoms which have been cast off by the respirations of men and by the exhalations of their systems, and we find that in all cities we have bacteria taking a new phase. The same bacteria which, in rural districts, would not be pathogenic, in cities is undoubtedly the cause of septic infection. We find the same germ here, but even the largest towns in our community do not furnish the same conditions for septic infection. Dr. Foote's experience during the war must convince him that it is not the same in crowded hospitals as in the country. It has been demonstrated beyond all cavil, for instance, that the bacillus of anthrax is the cause of anthrax; and if we had condemned criminals upon whom to try this inoculation, he does not doubt that the germ theory would be put upon a basis utterly beyond question. The evidence for the germ theory has been limited only by the lack of proper material upon which to experiment.

Dr. Foote admits that there is a difference between his practice of to-day and his war experience, and that his practice is more successful to-day than during the war; but he thinks it is due to the fact that he knows more than he did then, and that he has better opportunities and better instruments than before. But with regard to the germ theory the principle must hold good throughout the whole animal kingdom. He believes that what will affect a human being will affect a horse, a cow, or a hog; and he has dressed the wounds of horses many times and never found that any evil result followed because they had not been treated in an antiseptic manner.

Dr. Hodges' paper was referred to the Committee on Publication.

Diarrhœa Probably Due to Ulceration of Rectum.

Dr. Foote has a boy that will be five years old next spring. Last summer he was taken sick with a slight diarrhœa. The little fellow continued to run about the house, but had no appetite. In three or four days he had fever and his actions became very frequent and he had to take to his bed. Dr. Foote gave the ordinary diarrhœa prescription, but he grew worse. His temperature was only 98.5°; pulse 88. His actions became more frequent, and one day they reached fifty

in number. A consultation with professional friends brought relief to the sufferer. He had complete anorexia, amounting to disgust for food and there was no thirst. He obtained relief by the hypodermatic use of morphia and atropia in minute doses. All the temperatures were taken in the mouth or axilla.

Dr. Graham suggested that the case was ulceration of the rectum.

Dr. Faison had seen a similar case in a clinic, which speculum examination proved to be an extensively ulcerated rectum—promptly recovering under the use of caustics.

Dr. Carr read the clinical *report of a case of pneumonia,* which was referred to the Committee on Publication.

On motion of Dr. Picot, Dr. T. J. Burbage, of Franklin, Va., and a Fellow of the Medical Society of Virginia, was invited to take a seat and participate in the discussions.

Second Day.—The *morning session* was called to order at 9:30.

The report of the Financial Committee showed a balance on hand of $765.60.

The Committee recommend an assessment of $2 for the ensuing year, and that the salaries of Treasurer and Secretary be the same as last year.

Dr. J. M. Baker read a *Report from the North Carolina Pharmaceutical Society,* submitting the National Formulary for consideration, and adoption of its formulæ as authority for all preparations contained therein.

Dr. Thomas F. Wood said this Formulary contains all the preparations which were excluded from the Pharmacopœi of the United States of 1880, and includes a large number of formulæ which are in use by physicians lately. In the revision of the Pharmacopœia it was impossible to include all preparations in use, and many of these unofficinal preparations have been called for by physicians in different parts of the country. In Brooklyn they had a formulary of private prescriptions and preparations that was popular, and in Philadelphia they had one of the same sort, which included many popular preparations. These two decided to present what they had collected, and it was adopted by the American Pharmaceutical Association. The volume contains formulæ of great importance to the profession—some not found in the dispensatories, and some that have not found their way into any book of collected formulæ. It

will be well to appoint a committee to inquire into this book during the session and see whether or not we can adopt it. If we can adopt it, it will relieve the smaller druggists in our State of much expense, and it will furnish the physicians with a number of formulæ that cannot be excelled, and we shall also have a uniform standard of preparations. Referred.

Dr. Carr moved a reconsideration of the motion by which A. V. McCanless joined the Association yesterday. Carried.

The following Committee was appointed by the Chair to consider the adoption of the National Formulary: Drs. J. T. Nicholson, J. A. Hodges, and James M. Dunlap.

The President read Dr. Tayloe's *Report on Obstetrics.*

Dr. Carr introduced his little son, who was suffering with a singular eruption on the back of the hands, the nose, ears, etc.

Dr. J. C. O'Hagan describes a *skin disease* which invaded Pitt county, which resembled scabies, but it could not be proved to be scabies by the microscope, etc. He failed to cure it with the ordinary remedies for eczema. It extended widely and attacked almost every family, but he was not prepared to say that it was contagious. He diagnosed the case of Dr. Carr's son as eczema, demanding local and constitutional treatment.

Dr. Carr said several physicians in New York had diagnosed it as pemphigus, impetigo, eczema, and that Dr. Fox called it contagious impetigo.

On motion of Dr. S. T. Nicholson, the Medical Society of North Carolina tendered by telegram fraternal greetings to the Mississippi Medical Society, now in session at Jackson, Miss.

Dr. George G. Thomas read the *Report of the Committee on the President's Message.* It earnestly commends the suggestion that this Society shall continue its opposition to the establishment of medical colleges in this State until such time as they can begin with sufficient endowment to set all chance of failure out of the question. The standard of proficiency established by the Board of Examiners demands that the candidates shall be well educated, and the very spirit of their work demands that all of the medical colleges shall be equipped with laboratories of the best character, and the studies directed by men of learning. The suggestion that a committee be appointed by this Society to represent it at the meeting in May, 1890, to revise the Phar-

macopœia, meets approval. The law passed at Charlotte making it possible for a physician to join the Society by a written application, endorsed by two members—the applicant himself not being present—is not in accordance with the spirit of our laws, and has not realized the hopes of the author, and should be repealed. The practice of allowing reports from Sections to be submitted by proxy is not reasonable. The author should be present when his report is made to defend it, if assailed, as well as to show, by his attendance, his appreciation of the compliment of the appointment to his important place. Of course this cannot apply when detained by circumstances beyond his control.

Dr. Geo. G. Thomas moved that so much of the By-Laws as allow a physician to become a member of the Society by a written application, not being present himself, be repealed. Carried unanimously.

Dr. L. G. Broughton read a paper on *Aseptic and Antiseptic Midwifery.* Referred to the Committee on Publications.

The Report on Surgery, in the absence of Dr. Lucas, the Chairman, was referred to the Committee on Publication.

The Report of the Obituary Committee, Dr. Satchwell, Chairman, was referred to the Committee on Publications.

The Report of Dr. M. P. Bodie, on the Practice of Medicine, was referred to the Committee on Publications.

Dr. Faison read the report of a case of *Spontaneous Thrombosis of the Pulmonary Artery following Labor, with Recovery,* which was referred to the Committee on Publications.

Dr. A. C. Palmer, of Norfolk, on invitation, read his paper on the Ear.

Dr. J. M. Hays moved that thanks be tendered Dr. Palmer for his paper, and that it be referred to the Committee on Publications. Carried.

Dr. J. M. Baker read a telegram from the orator of the evening, Dr. R. L. Payne, Jr., saying he was at Norfolk, and would come on. The railroad agent, however, said there will be no trains from Norfolk to-day.

Dr. T. D. Haigh read a paper on—

Inebriety.

Dr J. W. Jones said, for this unfortunate class we need an asylum just as much as we do for the insane, and hopes that somebody may take up this work.

Dr. Thomas F. Wood said that Dr. Haigh had given some valuable thoughts on the subject. Some of his theories, however, he is not exactly in accord with. It would not be safe to take the position that every inebriate is a diseased

man except in the sense that he is morally diseased, inasmuch as drunkenness is a breach of the moral law. He is inclined to take that view of it, but whatever position we take, it all leads us back to the original proposition ;—What shall we do with these poor people? All that can be done at present is to put an inebriate under guard, but soon he becomes tiresome and a nuisance to his keepers, and thus many of these poor men go from one state to another until their recovery is impossible. He fully agrees with Dr. Jones that the time has come in the State when, if we had such an asylum, we could lessen the pressure on our insane asylums.

Dr. George G. Thomas said the difference between an habitual drunkard and a dipsomaniac is this: The dipsomanic struggles hard against the inclination to drink when the fit comes on him, and in his periods of freedom he has a feeling of repugnance to liquor. The common drunkard is a man who is properly diseased, but his disease is of a different character. Of the two men, the dipsomaniac is the least amenable to treatment, but all the more needs isolation. The common drunkard could be treated more thoroughly by the law in some stronger form, because in him it is the indulgence of a depraved appetite. In the other, it is an appetite which you may call depraved, but which he cannot resist, and it would not be fair for the State to class all these men as inebriates and treat them alike. The dipsomaniac is really an insane person with lucid intervals; the other is a man who willfully indulges a depraved taste.

Dr. C. J. O'Hagan, thinks Dr. Thomas has made a very proper distinction. The dipsomaniac is often a man of brilliant intellect, while the drunkard is a very common fellow, who seeks relief from care in drink. Dr. Haigh draws a very sad picture, but if you look back thirty or forty years you will find, that the drinking habit has actually decreased. The increase of knowledge has shown us the harmfulness of the habit, and public opinion has grown so that a drunkard is put outside the pale of respectability. We have to confess this, however, that there is an instinct in human nature, from the very lowest savage up to the most cultivated man, an inborn inclination for stimulants of some sort. The South Sea Islander gets a girl to chew his kava kava and spit it out into a vessel in order that he may drink the intoxicating mixture. Even the negroes in Central Africa make a kind of beer from fermented corn.

The Chinaman has his tea and his opium. The Hindostan will drink his arrack, which is meaner than the meanest whiskey. The ancient Greeks made splendid wines, and their noblest poets were not ashamed to sing in eloquent strains the virtues of the Falernian wine. The love of stimulants is an instinct in human nature. You may lecture the world, you may read the most convincing articles that the abuse of these drinks is fraught with the greatest danger to the race as well as to the individual, that the sins of the father are visited upon his children to the remotest generation, but still the desire for stimulants is there, and, in my opinion, will always exist.

Dr. T. D. Haigh remarked, we must not confound the simple drinking and the occasional getting drunk with inebriates, but the line of demarkation is a very difficult one to define. He would include them all in that line, and would place them all under restraint to keep them from becoming diseased, if they are not already so. In a country like ours where civilization has risen to such a height, it is time, that we as a profession should be leaders to a higher frame of thought and bring into active use all the means that we have for the prevention of the excessive use of alcoholic drinks. The paper was referred to the Committee on Publications.

Pharmacopœia Committee.—Dr. George G. Thomas moved that a committee of three be appointed from this Society to attend the Convention to meet in Washington in 1890 for the revision of the National Pharmacopœia, and that this Society pay the expenses of such committee. The Pharmacopœia is already in such a state of completion as to commend itself to the good will of all the profession. It is a work that cannot be dispensed with, and its revision and the amendments to be added can only be done by men skilled in the work. The motion was carried.

CONJOINT SESSION WITH THE NORTH CAROLINA BOARD OF HEALTH.

Dr. J. W. Jones, President of the Board of Health, presided.

Owing to the disastrous storm which washed out the railroads leading into Elizabeth City, only two members of the Board succeeded in reaching the place of meeting—Drs. J. W. Jones and Thomas F. Wood, Secretary. The conjoint meeting was called to order at $3\frac{1}{2}$ o'clock.

The Secretary of the Board recited the work which had

been carried on during the last year. The most important matter now before the Board was the preparation against an expected recurrence of yellow fever in Florida. Two members, Mr. J. L. Ludlow and the Secretary, attended the Quarantine Conference at Montgomery, Alabama, in March. The meeting was an exceedingly practical one. The question formulated for consideration was, "What would we do in such and such a case?" The determination to *report promptly the first cases of yellow fever*, so that each Board of Health in the country would be apprised of the earliest danger, was made a prominent feature, and if adhered to, we may be able to allay panic, which was so harmful to business last fall.

The State Board have determined to keep in operation the resolution of last year, viz: not to allow the colonization of refugees from towns infected with yellow fever, until arrangements could be made to maintain a strict quarantine guard during the period of detention.

Necessary preparations are being made to maintain a station of observation on the west side of the Cape Fear river should yellow fever show itself in the South, and the railroad authorities of the Atlantic Coast Line have given every assurance of hearty co-operation. With the small means at command of the Board, no quarantine worth mentioning could be kept up without the assistance of railroad authorities, and they have made the inland quarantine a common cause with the Board.

The last General Assembly refused to appropriate $5,000 asked to make the Cape Fear river quarantine effective. This throws a great burden upon the Quarantine Board, and puts a large burden upon commerce in the way of delays and extra expense in loading at a distance of twenty-five miles from Wilmington.

The Conference assumed a conversational enquiry. The facts elicited are about as follows:

1. In counties where there are towns of considerable size, the interest in sanitary matters is greatest, and is increasing.

2. In towns and counties where the medical profession is in harmony, much influence has been used to establish sanitary work. Where the medical profession was divided, no interest was manifested. This is necessarily so, because sanitary work is a cause involving not only the medical profession, but the people at large, and the work of one man or two could be little felt.

3. No efforts had been made to draw the people out in sanitary meetings in the majority of counties, but people were awaking to the necessity of concerted action in matters appertaining to the public health.

4. Raleigh, Wilmington and Fayetteville, had put forth earnest efforts to secure more accurate vital statistics, and there was no difficulty in getting active co-operation between the profession and the county authorities.

5. One of the towns has been sending utterly unreliable statistics; as a rule, all had been over-estimating the population.

6. Most of the counties present were impressed with the necessity of having a County Board of Health, and promises were made of renewed efforts to establish them.

The conjoint session adjourned at 5 o'clock.

The Medical Society was the called to order. Dr. J. M. Hays read a paper on—

Deafness, Its Causes and Prevention from a Rational Standpoint. Referred to the Committee on Publications.

The proposed excursion to-morrow was declined because of pressure of business.

The President appointed the following committees:

Committee on Revision of Pharmacopœia.—Drs. Thomas F. Wood, J. M. Baker and R. S. Young.

Committee on Selection of Essayist.—Drs. Carr, White and Hodges.

Adjourned until 7:30 P. M.

Second Day—*Evening.*—Called to order at 7:45 o'clock.

Dr. S. T. Nicholson moved that Dr. Faison be permitted to read Dr. Lucas' paper, being the report of the *Section on Surgery.* Carried. Referred to the Committee on Publications.

The committee appointed to select the Essayist for the next meeting selected Dr. I. Wellington Faison.

Dr. Paul B. Barringer, read the Report of the *Section on Anatomy and Physiology.* Referred to the Committee on Publications.

Dr. J. M. Hays explained that the prize offered by D. Appleton & Co., of $25 to the candidate who passed the best examination was a standing prize. There seemed to be an idea that it only applied to last year.

Dr. J. M. Baker tendered his resignation as Secretary of the Society. The Society refused to accept it. Dr. Baker explained that he really desired to resign, as he could no

longer afford the time necessary for the discharge of the duties. Dr. Picot moved that Dr. Baker's resignation be accepted, and that the Society thank him for his long services. Carried.

D. J. T. Nicholson, Chairman of the Section on Medical Jurisprudence, read a paper on *Dipsomania*. Referred to the Committee on Publications.

Dr. J. M. Hays moved that the place for the next meeting be now settled. Carried. Oxford was chosen.

The Board of Censors reported that, upon examination, the charge of false registration was not sustained. This case was brought from last year to allow Dr. Gallagher to explain.

Dr. Thomas F. Wood—The report only exculpates Dr. Gallagher from the charge of false registration, but does not decide his status in the Society.

Dr. Hodges explained that that was the only question before the Board.

Dr. Baker moved that Dr. Gallagher be allowed to amend his entry on the register. Carried.

Dr. Young, Chairman of the *Section on Therapeutics*, requested his paper be referred to the Committee on Publications without reading. Agreed to.

The Committee on Credentials reported favorably the names of Dr. B. F. Dixon, of Oxford, and Dr. Albert Anderson, of Wilson. Report adopted.

Adjourned until 9:30 the next morning.

THIRD DAY—*Morning Session.*—Was called to order at 9 o'clock.

Dr. George G. Thomas read the report of the committee appointed to look into the *Laws Affecting the Practice of Medicine in the State.* The committee was given discretionary powers to revise the existing laws, and to present such amendments as seemed necessary to the Legislature. Able legal counsel was employed to draft the amendments secured, and no step has been taken without proper directions being given by our adviser. It is worthy of record that, after a patient and honest statement of the need for these amendments, the act passed promptly through both houses without a dissenting vote.

The following seem to be points of new laws stated briefly: All physicians holding diplomas dated prior to the 7th day of March, 1885, may practice in North Carolina and collect by law fees for their services, provided they have received a certificate of registration. This latter clause is further for-

tified by requiring that all applicants for registration shall be licentiates of the Board of Examiners, or exhibit a diploma dated prior to the seventh day of March, 1885, or make oath that they were in active practice in North Carolina before the above mentioned date. To practice medicine or surgery without registration, after the 1st day of January, 1890, will make the persons attempting it guilty of misdemeanor, for which suitable punishment is provided. No physician can come into North Carolina and begin his professional work after the 1st day of January, 1890, without a license from the Board of Examiners, no matter what the date of his diploma may be.

Physicians of other States, living in counties bordering on North Carolina and doing practice in this State as well as in their own State, will be required to conform themselves to our laws or be subject to the penalties of their violations, if they continue to practice among our people. The officers of the law will no longer require that a physician shall make affidavit that there is a professional man in any city practicing without the license of the law. For if the accused is registered, he has exhibited to the Clerk of the Superior Court of his county his license, or diploma, or made oath, as the case may be, which shall entitle him to practice; and if he is not registered, then this is a fatal flaw in his right, and is itself an affidavit for the officer of the law. Again, it is necessary that all physicians in the State shall register before the beginning of the year 1890, and all who have not registered before this time must be licensed first by the Board of Examiners to entitle them to registration—a diploma or the oath above mentioned, being then of no value in obtaining the clerk's certificate.

Shortly after midsummer every physician in the State whose address can be had will receive a copy of this amended law, and every Clerk of the Superior Court will be in possession of like copies, and of the book of registration and the certificates of the same. A form of certificate has been adopted for the registration, and is now in the hands of the printer. These will be conveniently bound together and form a permanent record of the profession in North Carolina after this date. The Committee has likewise provided for the printing, in convenient form, of the laws, as amended, and for their distribution.

Dr. Thomas F. Wood moved that the Committee be continued, and be authorized to draw upon the Treasury the amount necessary to carry out the provisions of their work. Carried.

Dr. Thomas F. Wood, after considering this law and the work it has done, thinks that the attitude of North Carolina now before the medical profession in this State, as embodied in this law, is the most practical that has been adopted in the United States. Virginia boasts of her license law, and still, in order to appease the multitude, they have had to admit five homœopathists on their Board; of this embarrassment we are quite free. Alabama boasts of her law, but it is quite faulty in that it has a system of county examiners; the machinery is complicated, and is far below the law of North Carolina. He believes that this law will for the next twenty-five years put our State in the best position in the entire country, and will be considered the model for many years to come.

On motion of Dr. Reagan, the thanks of the Society were voted this Committee for the very efficient work done.

Dr. T. D. Haigh said we must make our Constitution conform to the law we have asked for, and moved the following amendment.

"All registered physicians and those entitled to register by the law of 1889, and all licentiates of the Board of Examiners, may be eligible to membership provided they receive a two-thirds majority of the vote of members at any regular meeting of the Society; and all sections conflicting with this resolution are hereby appealed" Lost.

After a considerable amount of discussion, the President appointed a Committee consisting of Drs. Haigh, Thomas, Carr, Young and I. W. Faison, to draft an amendment which would bring the Constitution into conformity with the new law.

The Committee on the National Formulary, through Dr. James A. Hodges, recommend the adoption of the National Formulary by the profession in our State, believing that thereby there will be secured more uniformity in medical prescriptions, especially as regards some of the standard medicinal preparations. Adopted.

The report of the Committee on Nominations was adopted, as follows: President—Dr. George Gillett Thomas. Vice-Presidents—Drs. R. L. Payne, Jr., Richard Dillard, and S. D. Booth. Secretary—Dr. J. M. Hays. Treasurer—Dr. C. M. Poole. Orator—Dr. W. J. Jones. Board of Censors—Drs. A. B. Pierce, T. D. Haigh, and W. T. Cheatham. Committee on Publicationss—Dr. Thomas F. Wood, Chairman. Delegates to the Medical Society of Virginia—Drs. L. G. Broughton, W. W. Grigg, George A. Foote, and Henry H.

Dodson. Delegates to the South Carolina Medical Association—Drs. George W. Purefoy, George Graham, and A. J. Battle.

After some discussion, it was decided to meet on the fourth Tuesday in May, 1890.

Dr. Burbank read the report of the *Section on Gynecology.* Referred to the Committee on Publications.

Dr. Haigh, on behalf of the Committee, proposed the following amendment to Article III, section 8, which they believed would bring the Society into conformation with the law, and at the same time leave the Society open to decide as to the eligibility of the candidates:

"All physicians in good standing who have complied, or shall comply, with the law of the State, ratified February 28th, 1889, and who shall receive the approval of the Committee on Credentials and a two-thirds vote of the members present at any regular meeting of the Society, shall be entitled to membership. All laws and parts of laws in conflict with this section are hereby repealed." Adopted.

Tenure of Officers of Board of Examiners.

Dr. J. M. Hays called attention to the fact that the Board of Examiners were elected on the 6th of May, 1884, and their term of office would expire on the 6th of May, 1890, whereas the Society did not meet until the 22d of May, 1890.

Dr. Baker said the By Laws did not fix any time for the Board of Examiners to terminate.

A discussion ensued as to the desirability of fixing a time in the Constitution for the duration of the Board of Examiners, when it was decided that it was not necessary to fix any period, as the Society could dissolve it at any time and appoint successors.

Dr. Tomas F. Wood moved that the *Society go into conjoint session with the State Board of Health* for the election of two members to fill vacancies on the Board. Carried.

Dr. J. W. Jones took the Chair.

Dr. Thomas F. Wood said the Governor has nominated to the State Board of Health, on behalf of the State, Dr. J. H. Tucker, Mr. J. L. Ludlow, and Prof. Venable. These nominations do not require the confirmation of the Medical Society.

A ballot was taken, and Drs. Hodges and Baker received a majority of the votes.

The Conjoint Session then adjourned.

The Medical Society was then called to order again by the President.

Dr. Haigh announced that Dr. Carr has consented to withdraw his resignation.

Dr. Thomas J. Moore, of Richmond, Va., was elected to *honorary membership* in the Society.

On motion by Dr. C. J. O'Hagan, the invitation to the banquet to-night was declined with regret.

Dr. George Gillett Thomas was installed as President.

Dr. Murray's paper on *Etiology of Malarious Diseases* was referred to the Committee on Publications.

Dr. Graham moved that the paper of Dr. Joseph A. White, of Richmond, on *Ulceration of the Cornea,* and which he had not had an opportunity to read because of the failure of his trunk to arrive, be referred to the Committee on Publications. Carried.

Thanks to the Local Committee of Arrangements were voted.

The Committee on Credentials reported the following names for membership, which report was adopted: T. J. Burbage, Riddicksville; W. B. Floring, Elizabeth City; W. C. Melton, Coneto.

The President read the Chairmen of Sections appointed for 1890, as follows: Practice—Dr. L. G. Broughton, Reidsville; Surgery—Dr. John H. Faison, Faison's; Obstetrics—Dr. B. F. Dixon, Oxford; Gynecology—Dr. Geo. W Purefoy, Asheville; Materia Medica—Dr. D. G. Caldwell; Anatomy and Physiology—Dr. W. J. Lumsden, Elizabeth City; Pathology and Microscopy—Dr. J. M. Baker, Tarboro; Therapeutics—Dr. J. M. McGee, Jr., Lumberton; State Medicine and Medical Jurisprudence—Dr. J. A. Hodges, Fayetteville.

Local Committee of Arrangements for Oxford Meeting.—Drs. J. M. Hays, B. F. Dixon, S. D. Booth, O. Gregory, J. M. Emmett, and P. B. Booth.

Dr. Duffy requested that the Committee to award the prize offered by himself to the Society be continued for another year.

Adjourned.

Licentiates of the Board of Medical Examiners of North Carolina.

The following gentlemen were successful in their examinations for license by the Board of Medical Examiners, at their recent session in Elizabeth City, N C., April 24, 1889:

Drs. M. C. Strickland, Bliss; A. L. Wynn, Ridgeway; C. E. Ross, Charlotte; Edw'd S. King, Statesville; J. H. Marsh, Gray's Creek; Jno. W. White, Wilkesboro; E. L. Cox, Catharine Lake; C. M. Benton, Newton Grove; Thos. S. McMullan, Hertford; William H. Cobb, Jr., Goldsboro; Edgar H. Sugg, Snow Hill; Charles M. Strong, Charlotte; Howard K. Edgerton, Kenley; A. Y. Linville, Belew's Creek; W. J. Richardson, Greensboro; G. A. Renn, Raleigh; W. H. Nicholson, Franklinton; W. W. Vines, Tarboro; J. H. Frey, Greensboro; Jefferson D. Jenkins, Tarboro; A. Y. Fitzgerald, Linwood; O. L. Denning, Dunn; T. J. Hoskins, Edenton; J. H. Thacker, Reidsville; W. G. Sutton, Seven Springs; J. M. Ward, Moyton: James P. Battle, Rocky Mount; Edward R. Michaux, Greensboro; G. M. McAden, Charlotte; J. F. Highsmith, Hives; Braxton Banks, Banks P. O.; Albert Anderson, Wilson; George I. White, Jefferson; W. H. Hughes (colored), Greensboro; H. H. Hall (colored), Salisbury; T. R. Mask (colored), Rockingham; E. C. Stearns, Asheville; S. H. Cannady, Wilton; P. Alston Nicholson, Washington; John A. Davis, Tarboro; William A. Graham, Charlotte. Also, ——— Houston, ———; ——— Tayloe, Hertford; Rich'd Whitehead, University of Virginia; ——— Stokes, Magnolia.

PHILADELPHIA OBSTETRICAL SOCIETY.

May 3, 1889. The President, Dr. Theophilas Parvin, in the chair.

Laparotomy for Intestinal Obstruction—Opium or Not?

Dr. Barton Hirst reported the case because it emphasizes the importance of early operative interference whenever indubitable symptoms of intestinal obstructton manifest themselves. Mrs. F., æt. 46, seen with Drs. Prendergast and Ziegler; has always been constipated. About five days before Dr. Hirst saw her, she had taken aperient pills, as she had not had a passage for some days. They did not move the bowels, but caused intense abdominal pain. Three days afterward stercoraceous vomiting began. Quantities of water had been injected into the bowels without result; no purgative had been administered. Finally an injection of glycerine was tried, which was followed by quite a large evacuation of well-formed fæces. Concentrated solution of salts was then administered in small doses frequently repeated. They had had barely time to act when profuse fæcal vomiting again appeared.

An operation was performed late at night, with the aid of Drs. Jos. Price, Prendergast and Zeigler. The small intestine was occluded by a mesenteric band so tightly that not a particle of fæces could go through. The band was divided. The distended gut was punctured, and a basin full of liquid fæces evacuated. The opening was carefully sewed up. The black, gangreous looking distal portion of the gut, (about 8 inches) was watched for about twenty minutes, while the circulation gradually returned to it. The abdominal wound was then closed and dressed. The whole operation lasted about thirty minutes; but she soon began to sink, and died of exhaustion thirty-six hours later.

The lesson that this case should teach, is to open the abdomen as soon as stercoraceous vomiting occurs; the operation may occasionally prove unnecessary, but little harm will have been done.

Dr. H. A. Kelly recently operated upon a similar case, *in extremis*. An old woman had had stercoraceous vomiting for many days, and was prostrated with a tympanitic abdomen, a very rapid pulse, and deeply furred brown tongue. At the abdominal section, the small gut was contracted down into a small cord from the ileo-cæcal valve eighteen inches up. A prolonged, waiting, do-nothing policy by an ignorant practitioner had done the work. These cases must be attended to early.

Dr. John B. Deaver thinks it astonishing with what freedom physicians will administer aperients in these cases. He recently saw a case where the physician had given six drops of croton oil, and wondered why he did not get any movement of the bowels. Treves tells us that there are cases which call for large doses of opium from the commencement. It is not safe to wait for stercoraceous vomiting. The most common form of intestinal obstruction, in the adult at least, is strangulation by a band. The most frequent form is volvulus, and the most common seat of volvulus is the sigmoid flexure. In these cases it is rather the exception to have stercoraceous vomiting until the patient is in *articulo mortis*. In the majority of cases, obstinate vomiting not allayed by simple measures with constipation and the evidences of depression—these symptoms warrant operative interference.

Dr. J. Price is surprised to hear a surgeon say that there is ever an indication for opium in bowel obstruction. He has never recognized an indication for opium save in a dying patient. It is just these large doses of opium which

render the surgeon absolutely powerless. He is called to a patient where the physician suspects obstruction, but the surgeon finds a comfortable patient with all the symptoms masked. Diagnosis should always be made, where possible, before administering an opiate. Dr. Hirst's case was unquestionably a chronic case of obstruction. The bowels were filled with faeces and gas. In these cases where patients are dying from faecal poisoning and shock, we must minimize every detail in our operations. They cannot stand a prolonged operation and manipulation of vital viscera like the intestines; nor will the condition of the viscera permit the introduction of sutures. The suture tracks will become gangrenous. Sometimes you can do nothing more than make an artificial anus with drainage of bowel contents. The methods of Senn, by means of disk and ring methods for forming intestinal anastimoses, are valuable and rapid, and will no doubt contribute much to intestinal surgery. [Dr. J. D. S. Davis, of Birmingham, Ala., seems to have made some improvement in the application, etc., of these disks.—Ed.]

Dr. J. C. Da Costa, remarked with due deference to Dr. Price's want of success with opium, that Mr. Treves is not entitled to the credit of this treatment. Prof. S. D. Gross recommended opium in intestinal obstruction, and stated that a number of cases had been recovered under it.

Dr. J. M. Baldy does not think that we need be proud of the treatment of intestinal obstruction by opium. Intestinal obstruction has a greater mortality than any other abdominal disease. The use of opium in such cases tends to increase distension and obstruction already existing; and if the degree of obstruction was such that it might have been relieved, it spoils the chance. In addition, no one can make a correct diagnosis with a patient stupefied with opium. But we ought not to give purgatives. If injections will not relieve quickly, we should not wait beyond obstinate vomiting, and stercoraceous vomiting should be absolutely the last symptom that we should wait for.

Dr. John B. Deaver cannot agree with Drs. Baldy and Price. Opium is called for until the diagnosis is made. We know that the paroxysmal pain of intestinal obstruction is due to peristalsis. We know that opium is not the cause of the distension; this is due to the obstruction. Where we have active obstruction—any form except *ileus paralyticus*—opium is of service. While he favors the administration of salines in ordinary abdominal surgery, we

cannot think they are called for until we have made up our mind whether or not we have intestinal obstruction. If this exists, then do not use them.

Dr. J. Price reported a case which demonstrates the mistake of Dr. Deaver. Day before yesterday his brother saw a patient in whom he suspected intestinal obstruction. He forbade opium for the relief of pain, and gave large enemata, but obtained nothing more than a colic movement. In less than six hours fæcal vomiting occurred. Three or four hours later he did a section for the relief of a strangulated bowel. The bowel was almost gangrenous at points. Salines were administered and four movements followed. The temperature is now normal; the pulse under 90. This case demonstrates the importance of a clear diagnosis and early work before the patient is dying of fæcal poisoning, collapse, and peritonitis. It matters not who first used opium—the cases died just the same.

Dr. Hirst agrees with the criticism in regard to purgatives in these cases. The concentrated solution of salts was given with the view of getting rid of the accumulated fæces. If there had been any idea that constriction still existed, it would have not been employed.

Septic Gonorrhœal Puerperalis and Iliac Abscess—Laparotomy to Evacuate Abscess, etc. Recovery.

Dr. Charles Meigs Wilson.—Mary Matthews, age 30, unmarried, pregnant with her first child, admitted to Lying-in Charity, December 29, 1888. Membranes ruptured, os uteri dilatable; symptoms of commencing labor December 31, normal labor, living child, weighing $6\frac{1}{2}$ pounds. Placenta and membranes came away intact. Two slight abrasions, involved the mucous membrane of the vulva, but no laceration of the perineal body. The abrasions were carefully dried and touched with a ninety-five per cent. solution of carbolic acid. The case was thought to be free from any septic infection. There was no septic case in the house—the temperatures of the other puerperal convalescents being under 100° F. But she had purulent gonorrhœa during the last five months of gestation. She was given the customary warm bath and vaginal injection of a litre of a $\frac{1}{2000}$ corrosive sublimate solution. Injection was repeated when labor commenced. The usual rigid aseptic precautions were faithfully followed out after labor. The evening of third day, without chill, her temperature went up to $102\frac{2}{5}$° F. The uterus was at once curretted with negative result, and irrigated with two litres of a $\frac{1}{2000}$ corrosive sublimate

solution, and antipyrine was given. The temperature varied for the next seventy-two hours between 99° and 101° F., afterwards between the normal and 100° F. On the morning fourteenth day, a small indurated mass was noticed in the right inguinal fossa. Counter-irritants, hot fomentations, quinine and whiskey in large doses were used. The swelling increased in area day by day. On seventeenth day, a violent chill suddenly developed, lasting fifteen minutes; in half-an-hour temperature rose to 104° F. An hour after the chill, she had a worried, anxious look, was in a colliquative sweat, and presented evidence of profound septic intoxication. Dr. Noble also agreed that we had either a tube or an extra-peritoneal depot of pus. Vaginal examinations conjoined with abdominal palpation revealed in the right iliac fossa, an extra peritoneal abscess. An incision midway on a line from the anterior superior process of the right ilium and the umbilicus, one inch in length, was made until the peritoneum was reached. Palpation failing to reveal fluctuation through the peritoneal surface, the wound was closed, and an incision five inches in length was made in the median line. The hand carried into the abdominal cavity revealed a thickened oviduct, adherent to the abdominal peritoneum, to which fimbriæ of the Fallopian tube were attached, and which seemed encapsulated in the sheath of the iliacus muscle. With the hand in the abdomen as a guide, the abscess was evacuated through an incision made just in front of the right antero-superior spine of the ilium; about one litre of pus, with fæcal odor was evacuated; great care was taken to save the abdominal wound from contamination with the pus. The abscess track was irrigated with a $\frac{1}{1000}$ solution of corrosive sublimate and drained with a large glass drainage tube. The wounds were dressed with the modified Keith's dressing. The patient made a slow convalescence, being discharged March 6. In three weeks she was practically well.

Undoubtedly she had a septic metritis following delivery, dependent, possibly, upon the gonorrhœal pus giving rise to septic salpingitis with aherent inflammation of the Fallopian fimbriæ to the peritoneum, and subsequent formation of a septic abscess in the sheath of the right iliacus internus muscle. The exploratory abdominal incision made the diagnosis definite, and indicated the best method of opening the abscess. Any attempt to open the abscess through the abdominal wall, without the light given by the abdominal incision, would most likely have allowed the pus

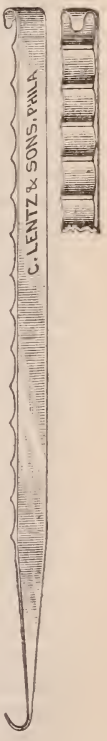
to escape into the abdominal cavity. If in doubt whether a post-puerperal septic abscess be extra or intra-peritoneal, it is the duty of the accoucheur to verify his doubt by the simple abdominal exploratory incision, which adds little danger. If, also, a case presents symptoms such as the case reported did, pus is present; and instead of temporizing, the doctor must realize that safety depends on prompt evacuation of the pus.

Dr. Wilson also reported an *intra-ligamentous cyst*, and showed the specimen removed from a woman æt. 32, unmarried, who commenced to menstruate at 13 years of age, and was always regular, but who had never submitted to coitus.

Dr. Barton C. Hirst had a case presenting nearly the same features.

Dr. H. A. Kelly exhibited *Eastman's Clamp Forceps* for securing the broad ligaments in vaginal hysterectomy.

Also a new **Corrugated Tenaculum** (*v.* Fig.) designed to afford a third hand to the operator. This tenaculum has opened up new avenues in the successful diagnosis and treatment of abnormal pelvic conditions.



Diagnostically, it is of value in bringing the uterus down towards the pelvic outlet, displacing all structures attached to the uterus in a downward direction, clearing the hollow of the sacrum for bimanual palpation. This is effected by holding the cervix down near the vaginal outlet by means of this tenaculum, *with the same hand which is being used in vaginal and rectal palpation*, while the free abdominal hand assists in palpating and bringing the structures to be questioned within reach.

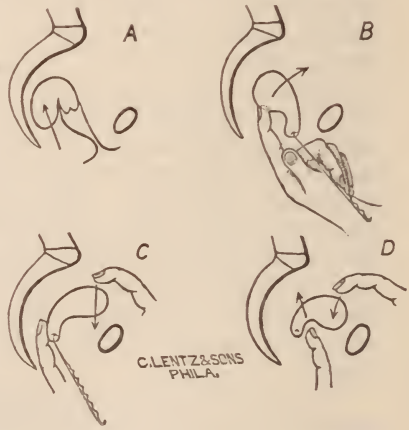
The tenaculum is eighteen centimetres in length and seven millimetres in breadth in the handle.

The end of the handle is recurved into a small, short hook, giving a purchase to the hand for traction. The other end tapers off into the stout hook, which is caught in the cervix when the instrument is in use. The handle is flattened on its upper surface which is divided into thirteen shallow gutters one centimetre in width. When in use, the hook is guided by the index finger into the cervical canal, where it is firmly fixed by pressing it firmly upwards into the anterior lip of

the cervix. The cervix is then drawn down to the vaginal outlet, and the handle of the tenaculum grasped so that the flat surface rests upon the ball of the thumb, while the tips of the second and third fingers rest on the corrugations, thus holding it *in situ*, leaving the index-finger free for vaginal or rectal palpation. Where a longer reach is desired for the index-finger, the tenaculum can readily be held between the last joints of the ring and little fingers.

In applying *massage* to the pelvic ligaments and stretching adhesions, the value of the tenaculum is especially great. Very often the only possible means of demonstrating a shortening of one or other ligament is by putting all the lateral, and posterior supports on the stretch by this means, when soft yielding structures on one side will be found, on the other, to be replaced by sharp, resisting, sensitive bands.

Retroflexion.—As a simple means of replacement in some cases of retroflexion and retroversion the tenaculum is especially useful. Here, sometimes it is absolutely necessary to exert pressure and traction in three directions at one time.



The main obstacle in the way of an easy and immediate reposition, in cases of retroflexion where the cervix has not also descended towards the vaginal outlet, is the fact that upward pressure upon the fundus through the vagina or rectum only tends to drive the body of the uterus into the hollow of the sacrum as indicated by the direction of the arrow in Fig. A. By catching the tenaculum in the cervix and drawing it down, the uterine body is straightened out; then holding the tenaculum as shown in Fig. B, and exerting pressure upon the fundus with the index-finger of the same hand introduced into the rectum, the body yields and begins to go upwards in the pelvis, describing an arc around the fixed cervix, sweeping clear of the sacral promontory; at this point the fundus is caught by the other free hand working through the abdominal walls, and drawn forwards (*v.* Fig. C). The lower hand now lets go the tenaculum, and the index-finger

is used to push the cervix high up and far back in the pelvis, while the body is brought further forward and forced down. In this way the reposition is satisfactorily and easily accomplished.

MEDICAL ASSOCIATION OF GEORGIA.

The Association assembled in the Superior Court room, at Macon, Ga., April 23, 1889. At 11.30 A. M., Dr. W. F. Holt, in the absence of the President and both Vice-Presidents, called the convention to order. Exercises were opened with prayer by Rev. W. Dudley Powers, of St. Paul's church. The Secretary, Dr. K. P. Moore, of Macon, was in place.

Dr. Holt, in behalf of the Committee of Arrangements, delivered the *Address of Welcome.* In the absence of the President, Dr. A. W. Griggs, of West Point, replied in the name of the Association.

Dr. Holt introduced Dr. J. S. Todd, of Atlanta, the President-elect, who arrived opportunely, and delivered the *Annual Address of the President.* His subject was "*Medicine and Longevity.*" He presented a long array of statistics to show something of the recent progress of the science of medicine and the beneficial effect it had had on the death-rate of the world. Where physicians have most abounded, there the death-rate was smaller, and the average length of human life was greater. It had been frequently said that doctors never cured any one, but simply alleviated their sufferings, and the disease ran its course. He denied this statement. He could hardly believe that all evidences he had seen were false. When called to a patient and he administered a remedy that he expected to see produce a certain effect, and the effect followed in almost every instance, it was conclusive proof to his mind that he had accomplished the purpose which he set out to accomplish. When the progress of the disease was arrested, and the patient was put upon such treatment as would hasten his recovery, it was gratifying to know and to feel that he had been an agent in the restoration of the patient to sound physical health.

At the close of Dr. Todd's address, he announced the meeting ready for the regular business.

The President suggested that there were three subjects of paramount importance and deserving the attention of the Association. He referred to the salary of the Secretary, saying that the duties were arduous and frequently a per-

sonal expense to the incumbent, and thought the Association should arrange the matter. He also suggested that the Association should have a permanent home and settle down in it, and no longer be the peripatetic institution that it had been. The third question was the formation of a State Board of Health. He threw out these suggestions, and would leave the matter for consideration.

Dr. Wm. F. Holt, of Macon, moved that a committee of five be appointed to take these matters under advisement, and report.

Dr. Eugene Foster said that the matter of a State Board of Health was probably the most important measure that would come before the meeting, and moved to amend Dr. Holt's motion so as to separate it from the other questions, and submit it to a committee composed of one member from each congressional district. Dr. Holt accepted the amendment, and the motion was passed: The President appointed Drs. Wm. E. Holt, A. W. Calhoun, Hart, J. W. Duncan, and Johnson.

The Committee on Establishing a State Board of Health: Drs. Eugene Foster, Chairman, J. C. LeHardy, P. L. Hillsman, C. A. Brooks, A. W. Griggs, A. W. Calhoun, W. O. Daniel, J. B. S. Holmes, and G. W. Mulligan.

A number of letters and telegrams from absent members were read.

The Secretary read several invitations to the Association. Among them was an invitation from Dr. and Mrs. McHatton to attend a reception from 9 to 12 o'clock to-night, at their home. Accepted.

Adjourned until 3.30 P. M.

Afternoon Session called to order at 3.30 o'clock.

Dr. Moore, Chairman of the Committee on Publications, gave reasons for the delay in publishing the proceedings of the last meeting. Members had been slow in sending to the Secretary the papers they had read, and some had never been received, but had been published in the different journals.

A motion to receive the report brought on discussion. Dr. Foster called attention to the fact that the Constitution provided that articles read before the Association became its property. This provision had been violated often, and he moved that the members be held to the rule. Dr. Westmoreland thought it a bad provision, and moved that it be so altered as to give the authors the right to publish where they pleased. It was agreed to let the whole matter lay on the table until to-morrow.

The Committee on Prize Essay Fund reported the sum of $99.25 on hand.

The Treasurer, Dr. E. C. Goodrich, showed a balance on hand of $640.80. Under the rules, the report, with accompanying vouchers, has to be examined by a special committee, and the President appointed as such committee, Drs. V. O. Hardon, C. H. Hall, and H. McHatton.

Col. W. F. Morse requested the privilege of fifteen minutes, either before or after adjournment, to explain the Eagle cremator. Granted, after adjournment.

It was agreed that those who had voluntary papers to read should hand them to the Secretary by title, and that they should be taken from the table, and read as called by the convention. A number of subjects were handed in.

It was decided to take the papers up in the order they had been filed. The first called was that of Dr. Virgil O. Hardon, of Atlanta, giving a "*Report of Nine Consecutive Cases of Laparotomies.*" He said that he had prepared an elaborate paper for publication in the proceedings, but would content himself with a few remarks explaining as briefly as possible the cases mentioned. He knew the subject was a dry one, and would not tire the Association with too close a description of the minutiæ. The paper was well received.

Adjourned until 9 A. M. to-morrow.

Second Day.

Called to order at 9:30 o'clock by President Todd. The attendance was increased.

Committee on Nomination of Officers. On motion the President appointed a committee consisting of one from each county represented to compose this committee, to report to-morrow.

A telegram from Brunswick announced that the Mayor and Council of that city had, by a resolution unanimously passed, invited the Association to hold their next annual meeting in Brunswick.

"*Rational Methods of Preventing Yellow Fever on the South Atlantic Coast.*"

Dr. J. C. LeHardy, of Savannah, read a lengthy and able paper. He took the ground that quarantine was not essential to keeping out the fever of the South Atlantic ports—that is, not the so-called shot-gun quarantine. He thought that sanitation and effective drainage were the requisites for the purpose, and read a volume of interesting statistics on the subject.

The paper being up for discussion, Dr. Elliot, of Savannah, gave a few points of personal experience and observation. He did not think that the person conveyed the yellow fever germ, but that it was altogether carried in the clothing. He thought that a person could go from an infected district and not convey the disease, provided none of his clothing (besides that he might be wearing every day) from the infected district be carried with him. Several members related their experiences. It being within a few minutes of 12 o'clock, the hour set for the annual address, a recess was taken until that time.

At noon, the President's gavel fell, and Dr. T. M. Holmes, of Rome, was introduced, who delivered the regular *Annual Address*, advocating higher medical education of those coming into the profession.

At the conclusion of the address, the Association adjourned until 3:30 P. M.

The afternoon session was called to order with a full attendance.

On call for papers Dr. Westmoreland, read a "Report on Cases in Surgery," Dr. Stockton, of Atlanta, a paper on "Nasal Catarrh," Dr. K. P. Moore, on "*A Case of Voluntary Starvation.*" Dr. Moore took occasion to defend himself and Judge Gustin against some charges that had been made against them for neglect of duty in the Adam's case. He said he had done all that was in his power, and that Judge Gustin had shown the spirit of a noble, true-hearted Christian gentleman in his treatment of the case. He gave it as his opinion, formed from a more intimate acquaintance with the case than perhaps any other man was, that any attempt at efforced nourishment would have been ineffectual, and the final result would have been the same.

Dr. E. G. Ferguson exhibited his *instrument for making plaster of Paris bandages*, which was much admired and favorably commented on by all the members.

Dr. McHatton, read a paper covering many subjects, but devoted principally to "*Hydrophobia.*" He took the ground that hydrophobia was a great bug-bear, and that cases in dogs, even, were rare and were not, as properly supposed, more prevalent in hot than in cold weather. He showed from statistics that out of something over 500,000 patients treated in the hospital of the great city of New York, there had been but one case of hydrophobia reported, and that was not well authenticated. In an extensive acquaintance with kennel keepers, and a still more extensive correspon-

dence with them, he had yet to find one who had seen a case of genuine rabies in a dog.

Dr. Eugene Foster read a paper on, "*Paralysis of the Heart in Diphtheria.*" He condemned local treatment of diphtheria as cruel and hurtful. He did not claim that he had a specific, because he thought there was none—but thought the tendency of paralysis of the heart was a feature that should be more closely watched, and if watched and guarded against, he thought the danger attending the disease could be lessened.

The *Committee on Organization of a State Board of Health,* through Dr. Foster, chairman, reported that they had worked eight hours, holding two sessions, and had agreed upon the draft of a bill to be submitted to the next session of the Legislature to establish a State Board of Health. The bill was read to the meeting. It is a lengthy one and covers all the grounds. It was passed by a unanimous vote of the association And will go before the Legislature with this emphatic endorsement. The same committee, with President Todd added, was requested to press the matter before the Legislature.

Adjourned until 9:30 A. M., to-morrow.

Third Day.

The Association was called to order by President Todd at 9:30 A. M.

Report of the Nominating Committee. The following was the report: *President,* Dr. J. B. S. Holmes, of Rome; *Vice-Presidents,* Drs. R. O Engram, of Montezuma, and P. R. Cortelyon, of Marietta; *Censor,* G. W. Mulligan, of Washington. The next place of meeting Brunswick.

Report of the Committee on Programme. Dr. W. F. Westmoreland, Jr., submitted the report which recommended that any paper that should be filed with the secretary should stand on an equal footing with others, even if had been only just written.

The report brought on some plain talk, but the report was finally unanimously adopted.

The committee appointed to consider the matter of a permanent location for the Association, through their chairman, Dr. A. W. Calhoun, reported that the committee did not deem it advisable to change the present method. The report was adopted.

The auditing committee reported that the books of the treasurer and secretary had been found correct.

The call for papers being next in order, Dr. Noble read a paper on the "*Use of the Tampon.*"

Dr. R. O. Cofter, next read a paper on "*The Correction of Errors of Refaction and the Necessity for the Use of Atropine.*" He illustrated his remarks by charts showing the different shapes of eyes, lenses, etc.

The President appointed the committees that the Constitution made it incumbent on him to appoint, as follows: *Orator for the next meeting* Dr. Willis F. Westmoreland, Jr., of Atlanta.

Programme Committee. Drs. Eugene Foster, of Augusta; J. F. Lancaster, of Flovilla, and T. M. Holmes, of Rome.

He also appointed delegates to the American Medical Association.

Committee of Arrangements for the next meeting: Drs. J. A. Dunwody and J. A. Butts.

The next paper was read by Dr. Cortelyon on "*Functional Disorders of the Stomach.*" The doctor attributed much of what the darkies call "pain in de misery" to bad cooking, hasty and irregular eating and over-eating. We have heard of Sampson slaying his thousands with the jawbone of an ass, but he thought the frying pan and hot biscuits had slain their tens of thousands.

Dr. A. W. Calhoun, of Atlanta, read a *Report of 695 Cataract Operations.* He had thought he was fortunate to get 95 per cent. of successes, but his last 110 operations had been all successful. He attributed this success to the use of of one-fourth to one-half per cent. solution of cocaine, instead of the four per cent. solution formerly used.

Dr. Wm. Perrin Nicholson, of the Southern Medical College, Atlanta, read a paper on "*Ununited Fracture Treated by Wiring Fragments.*" The discussion on this subject was one of interest.

Dr. Davidson read a paper on *Nux Vomica as an Oxytoxic.* This paper created a general discussion and made quite an impression.

Adjourned until 3:30 o'clock.

Afternoon Session.—The Association was called to order by President Todd, at 3:30. After the usual omnibus resolution of thanks, the Association adjourned to meet in Brunswick on the first Wednesday in April, 1890.

MEDICAL SOCIETY OF STATE OF TENNESSEE.

The Fifty-sixth Annual Meeting was held in the Senate Chamber of the Capitol Building, Nashville, April 30th, to May 1st and 2nd. One hundred and sixty-six members registered, the largest number that has attended any meeting since the organization of the Society. The President, Dr. T. J. Happel, of Trenton, and the Secretary, D. E. Nelson, of Chatanooga, wece in place.

The following is a list of papers presented and which were fully discussed:

"The Importance of the Microscope in the Practice of Medicine and Surgery, with Therapeutic Uses," by Dr. Jas. E. Reeves, of Chattanooga; "Typhoidal Malarial Fever," by Dr. F. M. Duke, of Wartrace; "Physiological Action of Alcohol," by Dr. R. F. Keys, of Nashville; "Diseases Peculiar to Gestation," by Dr. J. B. Murfree, of Murfreesboro; "Asphyxia Neonatorum," by Dr. C. W. Beaumont, of Clarksville; "Report of Four Abdominal Sections," by Dr. W. D. Haggard, of Nashville; "Some Uterine Displacements not Curable, What Shall we do with Them?" by Dr. W. F. Rochelle, Jackson; "Laparotomy for Visceral Gunshot and Incised Wounds," by Dr. C. S. Briggs, of Nashville; "Extirpation of the Tonsils," by Dr. C. H. Lovelace, of Dukedom; "Report of Hip Joint Amputation, by Dr. P. F. Eve, of Nashville; "Some Points in the Treatment of Gonorrhœa, with a Description of an Appropriate Syringe," by Dr. W. F. Rochelle, of Jackson; "The Wire Corset in the Treatment of Spinal Affections with Exhibit," by Dr. A. J. Swaney, of Gallatin; "Report of a Case of Self Castration and a Case of Ovariotomy with Complications," by Dr. C. N. Cooper, of Cleveland; "Heterphoria," of by Dr. D. C. Savage, of Nashville.

The following were read by title and referred to the Publication Committee to be buried in the *Transactions:*

"Tubercular Meningitis," by Dr. J. R. Rathmell, of Chattanooga; "Recent Additions to our Pharmacopœia," by Dr. T. A. Atkinson, of Nashville; "Hysterectomy," by Dr. Richard Douglas, of Nashville; "Bilious Pneumonia," by Dr. J. A. Crook, of Jackson; "Report of Surgical Cases," by Dr. W. B. Wells, of Chattanooga; "The Most Common Eye Diseases and their Treatment," by Dr. J. G. Sinclair, of Nashville.

Dr. Frank Trester Smith, of Chattanooga, exhibited a new *tongue depression* and improvised *lid elevator* and a *method of*

removing accumulations of mucus, etc., from the trachea and larger bronchi after tracheotomy.

The following officers were elected for the year 1889–90: Dr. Duncan Eve, of Nashville, President; Drs. Henry Berlin, of Chattanooga; James B. Neil, of Marshall, and J. P. C. Walker, of Dyersburg; Vice Presidents respectively for the East, Middle and West Districts of Tennessee; Dr. D. E. Nelson, of Chattanooga, Secretary; and Dr. Richard Cheatham, of Nashville, Treasurer.

The committee appointed under a resolution of this session to recommend three gentlemen to the Governor for appointment as representatives of the regular profession as members of the Medical Examining Board of Tennessee, nominated the following: Dr. C. Deadrick, of Knoxville, for East Tennessee District; Dr. J. B. Murfree, of Murfreesboro, for Middle Tennessee; and D. D. Saunders, of Memphis, for West Tennessee, with Dr. J. W. Humboldt, as Alternate; [We published a synopsis of the Tennessee Medical Practice Regulation Law in our May number, page 163.]

On future motion, it was ordered that the President of the Society shall nominate during the vacation another member of the Society for position on the Medical Examining Board in the event of death, removal, or resignation of any who may be appointed.

The President's Address was delivered at the Vendome Theatre on the night of the first day. The subject was "Alcohol in Medicine."

The Address of Welcome was delivered by Dr. G. W. F. Price in the absence of Governor Taylor.

This was followed by a concert by local talent under the direction of Mr. Stewart.

Altogether the meeting was a decided success. The Society will meet in Memphis on the 2nd Tuesday in April, 1890.

Vomiting in Pregnancy.

I am using Peacock's Bromides in my practice, daily, and am better pleased with the preparation than ever. I have discovered a new application for it, in a case of vomiting in pregnancy. Believing that the sickness was produced by nervous irritability, I have and am giving Peacock's Bromides in full doses, with fine effect. I have prescribed it several times lately in convulsions of children with very satisfactory results. JOHN A. CAMPBELL, M. D., Franklin, Tenn.

Book Notices.

Œuvres Completes de J. M. Charcot.—Maladies des Poumons et du Systeme Vascularis. (Diseases of the Lungs and Circulatory System.) Tome V. With 51 Woodcuts and 3 Chromo-lithographic Plates. Paris: Aux Bureaux de *Progrès Médical*, 14 Rue de Carmes. E. Lecrosnier et Rabé, Libraires, Editeures, Place de l'Ecole-de-Mèdecine. 1888. (All Rights Reserved.) Paper 8vo. Pp. 664. Price 15 francs. (From Publishers.)

The Publishers of *Le Progrès Médical* are getting out, in excellent print, and at the moderate price of from 11 to 15 francs per volume, to be completed in seven volumes, "The Complete Works of J. M. Charcot." Volumes I, II and III, which we have not received, contain the author's "Lectures on Diseases of the Nervous System." Volume IV, also not received, contains his "Lectures on the Localization of Diseases of the Brain and Spinal Cord." Volume VI is announced to contain "Lectures on the Diseases of the Liver, Biliary Ducts, and Kidneys;" and Volume VII (in preparation), "Clinical Lectures on the Diseases of Old Age and Chronic Diseases." Such is the value of these publications that we feel this advertisement will be of interest to those of our subscribers who read French.

Prof. Charcot is so well known to the profession of this day as one of the world's most eminent specialists in diseases of the nervous system, that many will probably be surprised to learn that he has ever taught or written upon any other subject. Only a few years ago, however, he was Professor of Pathological Anatomy in Faculty of Medicine of Paris; and Volume V, which we now propose to notice, contains his lectures upon the subject delivered in 1877–'8, as collected and arranged by Dr. Bourneville. In addition to the lectures proper, the editor has inserted in their proper places many memoirs relative to the subject considered, which had been previously published by the author. Some of these bear ate of more than 30 years ago, and have, as says the editor, only a historic interest to-day. "But history," he says, "is in itself rich in information." Among these memoirs we find Prof. Charcot's Thése d'Agrégation, made in 1860 upon the subject of chronic pneumonia, which is referred to by Joccoud in his work on "Pulmonary Phthisis," as containing valuable information in establishing the unity of phthisis.

The volume before us is divided into four parts. Part I

is taken up with the pathological anatomy of the diseases of the lungs. Part II treats of tuberculization and cancer. Part III deals with alterations of the blood, leucocythæmia, and melanæmia. Part IV considers diseases of the vascular system, arterial and venous embolisms, thrombosis, endocarditis, ischæmic paralysis, etc.

Although such a length of time has elapsed since the delivery of these lectures, that great advance has been made in pathology and pathological anatomy, the book is well worth bringing out even at this late date, so much valuable information does it contain. The histories of many instructive cases are also given. The book is illustrated with numerous instructive woodcuts and two colored plates.

R. M. S.

Exploration of the Chest in Health and Disease. By STEPHEN SMITH BURT, M. D., Professor of Clinical Medicine and Physical Diagnosis in New York Post-Graduate Medical School and Hospital, etc., New York. D. Appleton & Co. 1889 Cloth. 12mo. Pp. 206. (For sale by Messrs. West, Johnston & Co., Richmond.)

This manual makes no attempt to establish pathognomonic or distinctive signs of disease. The author thinks that "precision in diagnosis is more surely attained by treating each sign as subordinate to various combinations of signs" found in different maladies. The doctor sticks well to his text, and gives good lessons of description. Yet, in this age of utilitarian ideas and the direct application of a principle to an observation—or rather, the teaching of a principle by an illustration—we venture to predict that his second edition will embody a little more that is clinical as to the conditions or diseases in which the murmurs and rales are the most pathognomonic signs.

Warner's Therapeutic Reference Book. Philadelphia: Wm. R Warner & Co. 1889. Cloth. 16mo. Pp. 119. (From Publishers.) Price, $1.00.

This little pocket-size "Reference Book" will be found valuable under many circumstances when just such information as it contains is wanted by the practitioner. It contains tables of weights, measures, etc., and a very full posological table—much fuller than is in most visiting lists—doses, incompatibles, poisons, antidotes, eruptive fevers, directions for post mortems, useful formulæ, medical formulary, arranged alphabetically as to the names of the diseases for which the prescriptions are suggested, etc., etc.

We have no authority for saying it, but we would not be surprised if Messrs. Wm. R. Warner & Co. would give a copy to a liberal patron.

Physiological Notes on Primary Education and the Study of Language. By MARY PUTNAM JACOBI, M. D. New York and London: G. P. Putnam's Sons. 1889. 8vo. Pp. 120. Cloth. (From Publishers.)

This is a work that every educationalist should attentively read, for it gives fact and thought. The authoress proves most clearly that the mental education of a mere child may be imbued with the scientific methods and ideas which should furnish suitable preparation for advanced scientific studies. She argues most forcibly to prove that every child intended for the culture of arts and sciences should, in early life, adopt the study and mastery of Latin especially, in order to study language in its proper bearings—more particularly if the child is to be educated in his mother tongue—the English. The work deals a good deal with propositions in mental philosophy, with which science Dr. Jacobi is familiar.

Pulmonary Tuberculosis—Its Etiology, Symptomatology and Therapeutics. By PROF. DR. H. VON ZIEMSSEN. Translated by DAVID J. DOHERTY, A. M., M. D., Instructor in Chicago Polyclinic. 1888. George S. Davis, Detroit, Mich. 12mo. Pp. 120. (From Publisher.)

While the excellent publications of the present series of the "Physicians' Leisure Library" are not affected thereby, we think the publisher would greatly please the purchaser, without adding anything to the cost of the books, if he were to put a name on the back, so that the book might be told as it stands on the library shelf. The present work gives the most recent lectures by the eminent German Professor on Tuberculosis; and in the lectures he discusses all the views of the bacillus, etc. It is also a practical volume, full of information, and pleasantly retailed to the reader.

Practical Lessons in Nursing—Diseases and Injuries of the Ear—Their Prevention and Cure. By CHARLES HENRY BURNETT, A. M., M. D., Aural Surgeon to the Presbyterian Hospital, etc. Philadelphia: J. B. Lippincott Company. 1889. 12mo. Pp. 154. Extra Cloth. Price, $1.00. (For sale by West, Johnston & Co., Richmond.)

Such a work as this is important as well to the general practitioner as to the nurse; for the doctor feels that, though

he has relegated almost the entire "hearing department" to specialists, he ought yet to know what *not* to do in cases of suspected or real ear trouble. But especially is this book a good one for the nurse or attendant upon one who has ear trouble, for it tells also what to do as a nurse or attendant, and what not to do. It is well writen, and illustrations are scattered all through the text.

Clinical Atlas of Venereal and Skin Diseases, including Diagnosis, Prognosis and Treatment. By ROBERT W. TAYLOR, A. M., M. D., Surgeon to Charity Hospital, and to Department of Venereal and Skin Diseases, New York Hospital, etc. *Illustrated with 192 Figures, many of them Life-Size, on 58 Beautifully Colored Plates; also many Large and Carefully Executed Engravings through the Text.* PART. III.—**Venereal Diseases.** PARTS IV, V and VI.—**Diseases of the Skin.** To becompleted in Eight Folio Parts, measuring 14x18 inches. About 400 pages of text. Price per Part, $2.50. Two Parts Issued Every Two Months. For Sale by Subscription Only. Philadelphia: Lea Brothers & Co. 1888 and 1889.

We noticed Parts I and II in our November number, 1888. It would be hard to say more of the four Parts now before us than we did of those two Parts, unless we were to enter into a review, which our limits will not allow. Part III, now before us, completes the portion of the work to be devoted strictly to Venereal Diseases. It fully keeps the promise made in the Prospectus of the publication—to be full and accurate in description and in suggestion as to prognosis and treatment. Indeed, the richness of the chapter on Treatment of Venereal Sores gives this an advantage over text-books usual in the colleges, or adopted as reference books by practitioners.

Parts IV, V and VI are on Diseases of the Skin. Several pages are given to definitions of terms and descriptions of lesions of the skin which characterize "skin diseases," exclusive of those due to venereal diseases which have been considered in the preceding Parts. Adopting the classification emanating from the American Dermatological Association, Dr. Taylor at once begins with special diseases—describing their peculiarities as well—and illustrating their appearances by drawings and chromo-lithographs as well as it is possible to do on paper. In *Part IV*, full articles and illustrations are given on Erythema, Eczema, Acne, Psoriasis, and Favus (or tinea favosa). *Part V* treats of Pediculosis, Erythema Facei and Ephemeral Erythemata, Erythema Circinatum, Herpes Iris, and Erythema Serpens, Tinea Versicolor, Tinea Tonsurans, Pityriasis, Rubra, Der-

matitis Exfoliativa, and Impetigo Herpetiformis. *Part VI* is devoted to Urticaria, Pemphigus, Tinea Tricophytina Barbæ, Tinea Circinata, Ecthyma, Lupus Erythematosus and Herpes Zoster. As a whole, this *Atlas* is forming a magnificent work, useful to every practitioner.

Electricity and the Methods of its Employment in Removing Superfluous Hair and other Facial Blemishes. By PLYM. S. HAYES, A. M., M. D., Late Professor of Chemistry and Toxicology Woman's Medical College, Professor of Gynæcology and of Electro-Therapeutics, Chicago Polyclinic, etc. Chicago: W. T. Keener. 1889. Cloth. 12mo. Pp. 128. (From Publisher.)

This little book is just the thing wanted by those who are using electricity as a caustic. Now that the cosmetic effect of electrolysis has been brought so prominently to the attention of the people and profession, the doctor wants to know how to work successfully and satisfactorily. Dr. Hayes, only ten or twelve years ago, was among the pioneers in this field of the uses of electricity; but he has gained such experience as to make him eminent authority on the subject. One who follows the directions given in this work will be able to make many friends and more money, for people will pay more cheerfully for looks than for the necessities of life.

Immunity Through Leucomaines. By EUSEBIO GUELL BACIGALUPI. Translated from Second French Edition by R. F. RAFAEL, M. D., New York. J. H. Vail & Co. 1889. Flexible Back. 12mo. Pp. 170. (From Publisher.)

This book abounds in many curious statements which are claimed as facts, and projects numerous suggestions under the name of established theory. We are willing enough to believe that there is an immunity which comes through leucomaines in many instances, but we are not prepared to accept the doctrine as established upon as yet accepted facts, so far as they relate to many diseases. It even yet remains unproven that Pasteur has been successful in inoculations against rabies, and surely Ferran has not succeeded as *he* claims, in inoculations against cholera, nor are the experimental inoculations against yellow fever, as yet, by any means a recognized barrier against that epidemic disease. We are not of those that abuse these great men for further prosecuting their special studies; for if they fail to establish what they thought they would, their negative results would still be of incalculable service to the scientific world. Find-

ing, then, that the facts upon which the theory of immunity through leucomaines is based are immaturely quoted, and as yet are unproven as universal facts, we must look upon the theory now given out as likewise unproven—however much it deserves record as a possible solution of a difficult problem, or however valuable it may prove as a practical suggestion. In pigeon-holing this theory for the present, we do so only after carefully noting that it is so thoroughly indexed as to be easily referred to and brought to light again. The title of the book fully states the proposition.

Atlas of Venereal and Skin Diseases. With Original Text by PRINCE A. MORROW, A. M., M. D., Clinical Professor of Venereal Diseases; formerly Clinical Lecturer on Dermatology in University of City of New York, etc. Fasciculus XIII. New York: William Wood & Co. 1889. Folio. Pp. 20. Five Chromo-Lithographic Plates, flesh tints and colors. (From Publishers.)

This Atlas is not a work of to-day only, but will be serviceable as a clinic fifty or a hundred years from the present. It is being issued in fifteen monthly parts or Fasciculi, at the very moderate charge of $2.00 per part; but it is sold only by subscription to the entire fifteen parts—$30. We have so continuously commended this Atlas to the favors of our readers that it would be but a repetition of what we have said to say more. The present Fasciculus contains plates 61—Elephantiasis of leg, and of scrotum; 62, leucoderma, and alopœcia areta; 63, keloid, and fibroma; 64, Xanthelasma and rhinoscleroma; 65, Xeroderma pigmentosum.

The Insane in Foreign Countries. By WILLIAM P. LETCHWORTH, President New York State Board of Charities. New York and London: G. P. Putnam's Sons. 1889. Large 8vo. Pp. 374. Cloth. Price, $3.00. (For sale by West, Johnston & Co., Richmond.)

The able author and pleasing writer of this work, presenting an examination of European methods of caring for the insane, devoted many months in visiting most of the different places spoken of, in order to compile the facts on which to base just conclusions, and from which to receive suggestions for the better management of the asylums in this country. He has done his part well, and made a volume that will interest every one who possesses a spark of philanthrophy. Especially "to physicians and managers con-

nected with institutions for the insane, and to all interested in the care and welfare of the mentally diseased, this book will prove particularly serviceable and instructive." The contents include a brief historical survey of the treatment of the insane in various countries from the earliest times to the present day. And then the records of institutions existing in England, Scotland, Ireland, Continental Countries, the Colony of G'heel, the Provincial Insane Asylums of Alt. Scherbitz, Resumé and Index. The book is illustrated by 21 plates.

Diphtheria—Its Nature and Treatment. By C. E. BILLINGTON, M. D., and *Intubation in Croup, and other Acute Chronic Forms of Stenosis of the Larynx.* By JOSEPH O'DWYER, M. D. Octavo, 326 pages. Price, muslin, $2.50. New York. William Wood & Company.

Tho first question asked of any new book on diptheria now is, Is there anything new in treatment? We cannot say exactly yes, with reference to this treatise, for intubations seems now to have become established practice wherever an expert specialist may be located. But the suggestions of Dr. Billington, made some twelve or more years ago, according to his account, have stood the crucial test of experience, and are so well approved that it would seem but little remains for therapeutic discovery. This book is a monograph, and is intended especially for the practitioner, although it is sufficiently elementary in many of its details to satisfy the needs of the merest beginner in the studies of diphtheria. Having the book, we value it as an important addition to our library. Its chief merit is ample description of the details of the various plans of treatment suggested. Doctors would do well to get the book and read it. Dr. O'Dwyer's part is also well done, and contains several wood-cut illustrations.

Treatise on Hernia—The Radical Cure by the Use of the Buried Antiseptic Animal Suture. By HENRY O. MARCY, A. M., M. D., LL. D., etc., of Boston, Mass. 1889. George S. Davis. Detroit, Mich. 12 mo. Pp. 251. Paper, 25 cents. (From Publisher.)

Such a "Treatise" as this one now brought to attention, is worth enough in itself to sell the current annual series of the "Physician's Leisure Library." The subject is worked up so as to include the labors of all the most important writers through last year. It does not seem, however, that any plan yet devised for the radical cure of inguinal herniæ

has popularized resort to operative procedures generally by the surgeon, or made the patient more willing to submit. It is estimated that there are about 3,000,000 persons in the United States alone who have hernia in one form or another; and yet we doubt very much if 500 radical operations are undertaken a year in this country; and it is a matter for serious consideration whether or not for ordinary cases the operation would pay the patient. Yet whoever undertakes to do a radical herniotomy, will find in this volume a great deal of valuable information from the latest sources.

Obstetric Synopsis. By JOHN S. STEWART, M. D., Demonstrator of Obstetrics, and Chief Assistant in Gynæcological Clinic of Medico-Chirurgical College of Philadelphia. Illustrated. Philadelphia: F. A. Davis. 1888. Cloth. 12 mo. Pp. 202. Price, $1. (From Publishers.

As a "Physician's and Student's Ready Reference" book, this is a serviceable publication. It is practically a synopsis of the teachings of Playfair, Parvin, Lusk, Galabin and Cazeaux and Tarnier, in their respective works. In addition, what was thought to be established by journal publication of more recent date has been incorporated in the little volume. The work, for the most part, is made up of the unabridged, but revised notes of the lectures of Wm. S. Stewart, A. M., M. D. Professor of Obstetrics and Gynæcology in the Medico Chirurgical College of Philadelphia.

Pocket Medical Formulary, Arranged Therapeutically. By ALEXANDER HAZARD, M. D. Revised and Enlarged by ABRAM S. GERHARD, A. M., M. D. Professor of General Pathology, Medical Jurisprudence and Clinical Medicine in Medico Chirurgical College, Philadelphia, etc. *With an Appendix Containing Formulas and Doses of Hypodermic Medication; a Table of Eruptive Fevers and Poisons—their Symptoms, Antidotes and Treatment.* Second Edition. Philadelphia, Pa. A. L. Hummel, M. D., Publisher. 1888. Flexible leather, tuck and pocket. 12 mo. length; 16 mo. width. Pp. 324. (From Publisher.)

The title describes the scope of this book which the young practitioner will find to be of daily use to him. The formulas are well selected from eminent authorities, and blank pages are interleaved for the dotting down of serviceable therapeutic memoranda, as the owner may get them for his readings, conversations or observations. The thumb index arrangement assists greatly in making reference to any disease or condition for which a prescription is wanted. To the maturer practitioner, it will oftentimes serve as suggestive of a line of treatment in a given case.

Physicians' Interpreter in Four Languages. Specially Arranged for Diagnosis. By M. von V. F. A. Davis, Publisher. Philadelphia, Pa. 1888. Morocco. Size for pocket, 5 x 2¾ inches. Pp. 206. Price, $1. (From Publisher.)

This vade-mecum is exceedingly useful to a physician who speaks only one language, but who has to attend a patient who speaks another language. It consists of a series of doctor's questions as to symptoms arranged in four columns—English, French, German and Italian—with an index in English, which enables the American doctor to refer at once to the proper question in any of the four languages. In dealing with foreigners, it is very practical and very useful.

Editorial.

American Medical Association.

The Fortieth Annual Session to be held in Newport, R. I., June 25, 28th, inclusive, promises to be a great success. The programme as announced includes the presentation of 242 different papers in the different sections—beside the statement that *many* others have promised to present papers. Probably 300 papers will be presented at this session. Can it be possible that interest is wanting in the success of this Great National Association? And yet of the 242 authors, only the following are from the Southern States—south of the Potomac and Ohio rivers: Drs. Thomas Legaré, of Chaleston; L. S. McMurtry of Danville, Ky; V. O. Hardon, of Atlanta, Ga.; W. E. B. Davis, of Birmingham, Ala.; J. G. Carpenter, of Stanford, Ky.; J. D. S. Davis, of Birmingham, Ala.; J. M. Matthews, of Louisville, Ky.; F. L. Sim, of Memphis, Tenn.; J. R. Briggs, of Dallas, Tex.; D. S. Reynolds, of Louisville, Ky.; J. G. Sinclair, of Nashvile; T. B. Greenley, of West Point, Ky.; Steele Bailey, of Stanford, Ky.; Norman Teal, of Kendallville, Ky.; A. V. Williams, of Frankfort, Ky.; Joseph A. White, of Richmond;—16. How can the South expect to assume that position in the medical world that we know the ability of the profession entitles it unless it brings itself to the front in these national gatherings of the distinguished and able men of the country? The local profession of Newport have done marvellously well to provide so positively in advance for accommodations and entertainments of *all who can* possibly be expected. The Transportation Committee

are actively at work trying to secure reduced rates over all the railroads of the country, and they hope to announce next week that the rate of one and one-third fare for the round trip has been secured for doctors and their families. Drs. P. F. Curley, of Newport, R. I.; W. H. Palmer, of Providence, R. I., and Liston H. Montgomery, of Chicago, compose the Committee on Transportation.

The Journal of the American Medical Association

Should become the pride of the entire profession of America—first, because of the value of the contributions to its pages; second, because American pride should make the representative journal of this nation the equal of any journal published in the world. It is cheap, also, since the cost of annual subscription—five dollars—pays the annual fee of membership in the American Medical Association. We are informed that a recent edition was large enough to send a sample to every regular practitioner in the country. We beg our subscribers to examine the copy sent to them, and then subscribe.

Virginia Pharmaceutical Association.

The Eighth Annual Meeting will convene in the Hygeia Hotel, Old Point Comfort, on Thursday, June 6th, at 10 A. M. Dr. E. A. Craighill, of Lynchburg, Va., is President, and Mr. T. Roberts Baker, of Richmond, Va., Corresponding Secretary.

The Philadelphia Medical Times, The Medical Register, and The Dietetic Gazette,

Have united, and will hereafter be published as a weekly, devoted to general medicine, with a quarterly devoted to dietetics. The journal will be under the charge of Dr. William F. Waugh, who has been in the editorial harness for over four years. The editorial labors will be shared by the members of the American Medical Press Association, under whose auspices the journal is issued. The office is at No. 1725 Arch street, Philadelphia, Pa.

Dr. Hunter McGuire.

Various rumors have been circulated among the secular press that Dr. Hunter McGuire, of this city, was about to accept the Professorship of Surgery in Jefferson Medical College of Philadelphia. Even the *Boston Medical and Surgical Journal* has stated that he had been elected. It is dif-

ficult to understand how such a report could have gained circulation, as Dr. McGuire has no idea of leaving Virginia, and was never an applicant for any Professorship in Philadelphia.

The North American Practitioner

Is a new exchange which contains a large amount of original matter, and forms one of its most marked features. It also contains numerous reports of Clinical Cases and Autopsies from the various hospitals of Chicago, Ill., where the journal is published. Drs. Bayard Holmes and Junius C. Hoag are the Editors.

Suit Against Medical Association of the State of Alabama.

During the recent session of the Medical Association of the State of Alabama in Mobile, a letter of resignation was read from Dr. W. C. Cross, of Tuskaloosa, in which he stated that he had made a contract to practice with the Blocton Iron and Coal Company, and regretted that the rules of the Association prevented him from longer retaining his membership under such circumstances. Upon motion of Dr. Jerome Cochran, the resignation was not accepted, and the name of Dr. W. C. Cross was dropped from the roll for "unprofessional conduct," it being in violation of the rules of the Association for one of its members to do contract practice. Referring to this action, the *Tuskaloosa Times*, of the 20th April, says: "We learned this morning that Dr. W. C. Cross, Ex-Senator from Bibb and Tuskaloosa counties, will bring suit against the Medical Association of the State of Alabama for $50,000 damages in order to vindicate himself of the charge of "unprofessional conduct," brought against him at the annual session in Mobile a short while ago.

Physicians' Visiting Lists.

Of striking novelties in the way of Physicians' Call Records is the *Medical Bulletin Visiting List*, published by Mr. F. A. Davis, 1231 Filbert street, Philadelphia, Pa.—3 sizes—for 70 patients daily, $1.25; 105 patients daily each month, $1.50; with blanks removable, $1.75. It renders the frequent rewriting of names unnecessary by the use of half-leaf stubs, ruled and dated for each day of the month. We have never seen anything like it before, and therefore cannot speak of it experimentally; but a glance at its arrangement commends the book, and leads us to think it will prove most serviceable and convenient. It has more than

the usual amount of printed memoranda in addition—always useful in emergencies; and yet this book is only ordinary pocket size, and neatly bound with flap, pocket, pencil, etc. Our advice is, *Try it.*

Bryce's Visiting List and Pocket Record, good for any month or year, is a neatly printed, durably bound, well-arranged and handy size "Visiting List," with flap, pocket and pencil, published by Dr. C. A. Bryce, of Richmond, Va., at $1, postage paid. Of printed matter, it has a table of poisons and antidotes, a list of some comparatively new drugs, a dose list, etc. The copy before us has the Calendar for 1889 on one of the fly leaves.

Some Changes in New York Polyclinic Faculty.

The following new appointments have been made at the New York Polyclinic:

Dr. Thomas B. Pooley, Surgeon-in-Chief of the New Amsterdam Eye and Ear Hospital, Ophthalmic Surgeon to the Sheltering Arms, Consulting Ophthalmologist to St. Bartholomew's Hospital, *Professor of Ophthalmology; Dr. B. Sachs*, Consulting Neurologist to the Montifior Home for Chronic Invalids, *Professor of Neurology; Dr. L. Emmett Holt*, Visiting Physician to the New York Infant Asylum, Consulting Physician to the Hospital for Ruptured and Crippled, *Professor of Diseases of Children; Dr. August Seibert*, Physician to the Children's Department to the German Dispensary, *Professor of Diseases of Children; Dr. H. Marion Sims*, Gynecologist in Charge of St. Elizabeth's Hospital, and New York Infant Asylum, *Professor of Gynecology;* and *Dr. Wm. H. Fluhrer*, Surgeon to Mt. Sinai and Bellevue Hospitals, *Professor of Genito-Urinary Surgery.*

The Polyclinic has increased its Hospital Facilities by the purchase of a large building immediately adjoining its original property, and after making necessary changes, will furnish and have it open by Sept. 16, when the regular session will commence.

Obituary Record.

Dr. Samuel Preston Moore,

Surgeon-General of the late Confederate States of America, died somewhat suddenly at his home in Richmond, Va., at 1:15 A. M., May 31st, 1889, at the age of 74 years. He

was a remarkably well-preserved man, but for some months past he had noticed and remarked to friends that his strength was failing as a result of advancing age, although such was scarcely noticeable by those who were in the habit of daily meeting him. He was a great sufferer from frequent attacks of trifacial neuralgia, from which he could obtain relief only by the use of chloroform—a vial of which he often carried in his pocket. But on May 30th—the day before his death—he was more than usually sprightly, and visited the office of the Superintendent of Public Schools of Richmond (fully a mile from his home), and manifested great interest in the forthcoming High School Commencement, in arranging for which he had devoted much time and effort. He returned home and partook of dinner with his usual relish about 5 P. M., and about 11 P. M. retired to bed in apparently as good health as usual. About midnight he awoke with a violent fit of coughing upon him; and his wife becoming alarmed by the failure of domestic remedies to afford relief, called in Drs. H. W. Davis and R. A. Lewis, near neighbors and friends. On their arrival, they found him still conscious but frothy blood running from his mouth with each act of coughing, and other signs of active congestion of the lungs were evident. But he became rapidly worse, and died at 1:15 A. M.—being conscious up to a few minutes of his death.

Dr. Moore was born in Charleston, S. C., in 1815. After graduation in medicine in 1835, he entered the U. S. Army as Assistant Surgeon. In two or three years afterwards, he rose to the rank of Surgeon, and served as such at the West Point Military Academy, and then with the army in the war with Mexico. After that war, he served as Surgeon in the frontier Indian wars, when such a life was surrounded by hardships and perils. In the Mexican War, his conduct was distinguished not only by gallantry on the field, but by great skill in the management of the important trusts committed to his charge. It was during this war that President Jefferson Davis became well acquainted with him as a friend and officer, and impressed by his ability as an organizer and disciplinarian. He remained a Surgeon in the U. S. Army until February, 1861, when, in obedience to the call of his native State, he resigned his commission and entered the military service of South Carolina as Surgeon.

In the organization of the Military Staff of the Confederate States, President Davis appointed Dr. Moore (in June, 1861,) as Surgeon-General, in which capacity he served the

Confederacy during the remainder of the war. The late Dr. Charles H. Smith, of Richmond, was Assistant Surgeon-General.

The position assigned Dr. Moore as Surgeon-General was one of great responsibility, but he proved himself to be the suitable man. With inadequate resources for the prosecution of a great war, particularly deficient in hospital stores and trained military surgeons and nurses, the infant Confederacy found in him the ability of a great organizer. He was a strict disciplinarian, and enforced, as far as possible, the rigid rules of the old service. Such regulations as were necessary to perfect the speedy organization of an active medical corps out of the material of civil physicians and surgeons, who had not known the meaning of a military superior, seemed nothing short of intolerable tyranny to many. But the Doctor knew better than the complainants what were the requisites of a properly organized medical corps about to enter upon a prolonged and memorable war; and hence, while lenient as to the court-martialing of officers fresh from civil life who murmured, he was yet inexorable in the maintenance of discipline. He was intent only in serving his country; and many competent to judge of such matters have declared that the Medical Department was the best managed Department of the Confederacy. On no occasion, perhaps, was his ability to organize in an emergency better displayed than just after the battle of Seven Pines, when the sick and wounded poured into Richmond by the thousands. It was a fearful task to bring order out of chaos. And yet he was equal to the emergency—as much so as it was possible for any man to be.

After the war, Dr. Moore determined on making his home in Richmond. With ample means left him, he did not enter into active practice, although it was impossible for him to rid himself altogether of professional duties—such were the number and urgency of calls upon him for professional services. Practically, however, by 1875 he retired from practice, and devoted his attention to the development of home industries.

In 1874, he became a member of the Executive Board of the Virginia Agricultural Society, and remained in 1881—all that time rendering valuable services to make the Annual Fairs the successes they then were.

On the organization of the Association of Medical Officers of the Confederate States in 1875, he was elected President; and was succeeded the next year by Dr. Hunter McGuire.

In 1877, Dr. Moore was elected a member of the Richmond City School Board, and was continued a member until his death. As Chairman of the Committee on Teachers and Schools, he was daily in the office of the Superintendent, and talked over matters pertaining to the public school system, in which he took great pride. He was specially active in the introduction of all measures that tended to improve the health of teachers and pupils. He was an earnest advocate of the teaching and practice of vocal music in the schools as a means of developing the lungs of the children. He was the author of a system of testing eyesight, with the purpose of having teachers so locate pupils in school-rooms as to be able to give weak-eyed children the best advantages to be derived from the light and from the arrangement or position of blackboards, etc. This service to the public schools of Richmond was a labor of love.

Dr. Moore married a Miss Brown—a daughter of an officer of the U. S. Army. Of their three children, Mrs. Howard R. Bayne, of New York, is the only survivor. His widow also survives him.

The deceased was a communicant of Grace Episcopal Church, of Richmond, at which the funeral services were conducted Sunday, June 2nd. The interment was in the family section in Hollywood Cemetery.

Dr. Moore was but little above medium height, but his figure was good. In all his movements, there were the evidences of his long military training. His face was finely modelled, and his head was richly covered with white curly hair. He usually shaved his chin, and allowed the beard on the sides of his face to grow long. Altogether, his appearance was that of an elderly man with whom time had dealt gently, and whose interest in life was undiminished. His presence was impressive—commanding respect. In conversation, he was bright—rather tending to the facetious; and his observations about people and things were somewhat racy without unkindness. His life was brimful of adventure. The records of his career unfold like a volume of romance—so far as his earlier experiences are concerned; and yet he would rarely ever talk—even to his most intimate friends—of any of the great historic occurrences in which he was himself at all conspicuous. It was an often-expressed wish that friends disposed to do so should be requested not to send flowers or other decorations for his coffin at his funeral.

The surviving Surgeons, etc., of the Confederate Army

and Navy, resident in this city, held a meeting June 1, and adopted resolutions and appointed pall-bearers.

Dr. Alexander Harris

Died at his home in Jeffersonton, Culpeper county, Va., May 19th, 1889, at the age of 61 years. He graduated from the Medical College of Virginia about the year 1848. He was at once sought by Dr. Mason, of Jeffersonton, as an assistant in his large field of practice, and soon after accepting the offer, Dr. Mason died, leaving to Dr. Harris a large practice in Culpeper county, Va. He continued in this practice for the forty years of his residence there, except the four years of the war when he served as surgeon in the Confederate Army. He joined the Medical Society of Virginia in 1882, and from that date until his fatal disease of the stomach, of which he became aware just before Christmas of 1888, he was untiring in his zeal and hard work for the advancement of the professional interests of the doctors of Virginia. In 1886, he was elected First President of the Society. On the organization of the Medical Examining Board of Virginia in January, 1885, he was elected one of the Examiners, and well-fulfilled every trust confided to him. At the end of his four years' term, he was re-elected for the succeeding four years. No man in the Virginia profession was more active than he in advancing every good work. His services to the State Society and as a member of the Medical Examining Board will be sadly missed.

He was a member of the Baptist Church; and without parade of his religion, he yet so walked with his fellow-men that all took knowledge of him that he was governed in his words and acts by the highest of Christian principles. He was genial, hospitable, and as a friend "as true as steel." During the last six months of his life he suffered a great deal of pain, and yet throughout this fatal illness, he bore his sufferings with becoming fortitude.

He married a Miss Martin, of Chesterfield county, Va., who survives him. Besides her, he leaves a large family of children, all of whom are grown.

Among his last conscious words were, "All is well," which sentiment wipes the tears from the eyes of sorrowing friends and gives bright hope of meeting again to the members of the now afflicted and bereft family. "Being dead, he yet speaketh," and his noble Christian character in social life and in professional relationships will long leave its impress upon those who knew him well.

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Original Communications.

ART. I.—Brief Remarks on a Number of Surgical Operations Performed in his Private Hospital.

By JOSEPH TABER JOHNSON, M. D., of Washington, D. C.

PROFESSOR OF GYNECOLOGY IN THE MEDICAL DEPARTMENT GEORGETOWN UNIVERSITY—GYNECOLOGIST TO PROVIDENCE HOSPITAL—FELLOW AND SECRETARY OF THE AMERICAN GYNECOLOGICAL SOCIETY—FELLOW OF THE BRITISH GYNECOLOGICAL SOCIETY AND OF BRITISH MEDICAL ASSOCIATION, ETC., ETC,, ETC.

CASE I.—*Cystic Ovary—Pyo-Salpingitis—Excision—Recovery.*

In September last I received a lady about 35 years of age into my hospital, who had been a sufferer since her first menstrual period. She was married before she was 20, and during the next 10 years gave birth to 7 children. For 3 years she had been unable to leave her house on account of chronic ovaritis and salpingitis, and for the last of the three was totally unable to walk. She was subject to terrible attacks of pain at night, which required or secured the frequent attendance of her physician. She had taken so much morphia that her nervous system, as well as her digestion, were greatly shattered. She was brought to my hospital in September by Dr. Stuart Harrison, of Anacostia, and was carried to her room by the doctor and her husband. Every effort was made to build her up, but as so little was accomplished it was determined to operate without further delay.

Her appendages were removed, and with them her invalidism. She now reports herself as being perfectly well—free from pain, and quite able to walk or ride anywhere she

pleases. One ovary was as large as a base-ball, and filled with pus; the other was about half as large, and was in a state of advanced cystic degeneration—both tubes contained pus. She has been lately operated on by Dr. Wales for painful fissure of the anus. I saw her husband last week, and he reports her well.

Case II.—*Sarcoma of Ovary—Tetanus—Death on Fifteenth Day.*

In October last, I was called to see Mrs. Col. M., who was quite ill in one of our hotels. She had been under treatment for pelvic cellulitis and ovaritis during the summer in Concord, Mass. Had been confined to her bed at one time as long as two months, and had been treated to much poulticing, blistering, purging, and opium. Her pain had often been relieved in this way, but she made no progress toward recovery.

Mrs. M. was a lady about 60 years of age; and as she could not be satisfactorily treated in a hotel, at the special solicitation of herself and friends, I admitted her to my hospital. Dr. Lincoln saw her with me, and thought at first that most of her symptoms were due to chronic pelvic cellulitis. A mass as large as a fœtal head could be made out in the left illiac fossa, which the doctor thought might be made to soften by hot douches, hot poultices, iodine, and by the use of alteratives internally. These suggestions were faithfully carried out by my nurses for two weeks, while the patient was kept quiet in bed. Electricity was also used. No diminution or softening of the mass having occurred, I determined, with the consent of the patient and the assent of Dr. Lincoln, to remove the mass by abdominal section. This was done in the latter part of October, in the presence of Drs. Lincoln, Cuthbert, and Luce. The mass removed was fully as large as a child's head, and was subsequently pronounced by Dr. Billings to be sarcoma of the ovary.

The patient did unusually well for twelve days. The wound healed by first intention, and I had every reason to believe Mrs. M. would soon be able to go home. On the evening of the 12th day she developed symptoms of tetanus, and died on the 15th day of lock-jaw.

This is the only death which has occurred in my hospital out of about seventy-five operations performed since its occupancy.

CASE III.—*Tender Cicatrix of Cervix—Emmet's Operation—Cure.*

Mrs. C., of Virginia, was sent by Dr. Brooks last November. Her principal symptoms were mental, and it was at times feared by her husband and physician that she would become insane. She was 47 years old, but was still menstruating regularly. The only lesion I could find was an old cicatrized laceration of the cervix, the edges of which were tender upon pressure. I thought her symptoms were reflex, and that she might be cured by Emmet's operation. After a month's consideration, she entered my hospital and was operated on, and her husband reported three months later that she was entirely well mentally and physically.

CASE IV.—*Irritable Caruncle of Urethra—Removal Under Cocaine—Cure.*

About this time I received an old lady of 70, whose life was and had been for many months a burden on account of an irritable caruncle of the urethra. She was compelled to pass water many times during the day, and with greater frequency at night. Her sleep was thus broken, and she had a constant cold on account of exposure winter nights. She had become exceedingly nervous, and was altogether miserable. The passage of her urine was always painful. I removed the caruncle under the influence of a ten per cent. solution of cocaine, and touched its base with fuming nitric acid. The operation was painless.

She has since been perfectly well, and no doubt would agree with the statement of Marion Sims that there was no disease capable of giving rise to so much pain and discomfort which could be so safely, surely, and perfectly cured by the proper surgical procedure.

CASES V, VI, VII, VIII, and IX.—

Cervical Stenosis—Goodell's Operation—Cure.

All were young ladies suffering agonizing pains at their monthly periods, and all cured but one by Goodell's system of rapid dilatation of the cervical canal under ether.

The one not cured was, I am now convinced, not sufficiently dilated. She was one of my first cases, and I was afraid to push the dilating process. Her cervical canal is now as contracted as before the operation, and to relieve her the dilatation will have to be repeated.

The operation is done antiseptically, and the patient is

kept in bed four days afterwards, and in the house for a week. By observing these precautions, I have seen no harm follow this forcible and rapid dilatation.

CASE X.—*Ovarian Abscess—Removal—Cure.*

Mrs. S., of Virginia, aged 30—married 14 years—no children—a sufferer for many years from pains in uterus and appendages. Was brought by her father to my hospital for treatment and operation. She had been in a number of medical institutions in different parts of the country with only temporary relief, and was now in a deplorable condition. She had had much treatment from irregular electricians and water-cure doctors, and from some of our good physicians.

After diagnosing enlarged and inflamed ovaries, I recommended their immediate removal. This was agreed to, and as soon as she could be prepared the operation was performed. One ovary was as large as my fist, and contained putrid pus. The abscess broke in the course of its enucleation and much irrigation of the abdominal cavity was required. The other ovary and tube were so much diseased that they were also removed.

The patient had a sharp attack of peritonitis, but recovered in a month and left the hospital. She is now the picture of health, and told me yesterday that she was perfectly well. Her color is as rosy as the delicious strawberries which she brought me from her place at Lanham Station.

CASE XI.—*Inflammatory Disease of Appendages—Removal—Cure.*

Lady aged 27—formerly a teacher—later an employee of the Government. Completely broken down from chronic inflammatory disease of her appendages. Brought to my hospital by Dr. Muncaster. Had been an invalid for several years. After removal of appendages on both sides she fully regained her health. Has none of her old pain—no menses—no ill health—is well. Gained much in flesh and good looks, and was married last fall to a prominent gentleman of social and political fame.

CASE XII.—*Uterine Myoma Arrested in Growth by Removal of Appendages.*

Miss B., also sent to my hospital by Dr. Muncaster—single lady between 25 and 30—a sufferer from severe and exhausting hæmorrhages on account of a uterine myoma about the size of a cocoanut. Had been under continuous treat-

ment for more than a year, including the use of electricity. No effect was produced either in the growth of the tumor or in checking the flow of blood. She returned to her work six weeks after the removal of her appendages, and has continued to improve ever since. It is now more than six months since the operation, and she reports no hæmorrhages and no growth of the tumor.

I have operated seven times for the removal of the uterine appendages to check alarming hæmorrhages produced by fibroid tumors with the most gratifying success in every case. The tumors have not only ceased to grow, but the hæmorrhages have been completely arrested.

CASE XIII.—*Ovarian Cyst—Removal—Cure.*

Miss R., of Glymont, was sent me by Dr. Chapman, of that place. She had an ovarian cyst. When she entered my hospital she had a pulse of 120, temperature 102° F., and respirations 40. Inflammation had suddenly occurred in the cyst-well, and a general peritonitis was impending.

I removed the tumor weighing about 20 pounds, and thoroughly irrigated the abdominal cavity. She made a good recovery. One of my nurses had a letter from her last week, in which she reported herself "perfectly well."

CASE XIV.—*Ovarian and Tubal Inflammation—Removal—Cure.*

Miss W., a nurse from Norfolk, Va., had suffered for years from chronic inflammation and pain in the appendages. Had been ill for several weeks on two different occasions in hospitals in our city. She had been confined to bed for three months previous to her entering my hospital with pelvic peritonitis and reflex vomiting. For three weeks she had retained no food in her stomach, and had been fed entirely by the rectum. She was greatly emaciated, and unable to sit up in bed. She was brought to me by Dr Sprigg, who had exhausted all means of relief during his three months of attendance upon this attack. She was brought upon a stretcher in the police ambulance, and was carried into the hospital by four assistants.

Her appendages were removed a week later with fear and trembling. We were afraid she would die upon the table. She is now very well, and is a candidate for nursing again.

She assisted me last week in an operation in my hospital, and requested me to procure her a situation. She has a good appetite and digestion.

Her ovaries were cystic and the tubes diseased. Her vomiting was at once arrested, and she ate solid food as soon as patients usually do after abdominal section.

CASE XV.—*Ovarian Abscess—Removal of Ovary and Tube—Cure.*

I operated the same morning in the presence of the same physicians (Drs. Fry, Sprigg, Cuthbert, and Luce) upon Mrs. B., a white lady aged 30. Married 8 years—no children. She had been treated by Dr. Fry for 10 weeks (in bed) for symptoms resembling extra-uterine pregnancy. At times she was thought to have a fibroid and the irregular flow of blood which so often accompanies that condition. The tumor at the side of the uterus was rather more painful, however, than fibroids usually are. I saw her three times with Dr. Fry at Hotel Langham. The second visit we were so sure of fluctuation and pus that Dr. Fry passed an exploring needle into the mass through the vaginal fornix. Offensive pus was in the groove of the needle upon its withdrawal.

Dr. Ford Thompson was asked to see the case, and to express his opinion as to the best vent for the evacuation of the pus. He at once advised abdominal section.

Dr. Fry brought her to my hospital the next evening, and she was operated on two days later. A pint or more of offensive pus was evacuated. The abscess broke in manipulating it, and the abdominal cavity required very thorough irrigation, and a glass drainage tube was left in. Very offensive discharge came from the tube for ten days, and it was two weeks before it could be dispensed with. The ovary and tube on diseased side were removed.

Patient left the hospital in 6 weeks, and is now, as she says, perfectly well. Must have gained at least 30 pounds, judging from her looks. The track of tube failed to heal completely, and just 10 weeks from the day of the operation the ligatures worked out of the wound. In three days from that time the incision was entirely healed.

I saw her last week and fitted an abdominal supporter as an ounce of prevention against a pound of ventral hernia.

CASE XVI.—*Probable Cancer of Ovary—Removal—Recovery from Operation, but Cure Doubtful.*

Mrs. M., white, aged 35—married, the mother of only one child, which is now 10 years old. Was not especially out of health until early last fall, when she was supposed to have

"typhoid fever," which was followed by a "malarial fever," and up to the time I saw her was still having night sweats and occasional chills with an elevation of temperature and pulse every night. In December she began to have an enlargement of the abdomen, which she was told was a collection of gas, and that pains shooting up the left side were produced by the irritation of the "gastric nerve." She was treated for several months for "retroversion of an enlarged uterus." I saw her about 3 months ago, and found her very much emaciated—unable to walk up or down stairs without assistance, spending most of her time in bed, having scarcely any appetite. She was sleepless, helpless, and hopeless.

Upon examination, I found what appeared to be a cyst. The differential diagnosis between ascites and a cystic collection of fluid seemed to be perfect.

A distinguished physician saw her with me and thought he made out a cyst and agreed with me that an exploratory incision should be made.

The patient and family at once agreed to this, and she came within a few days to my private hospital. We tried for a week to build her up. For a time she ate more, and enjoyed her food, but as the abdomen rapidly enlarged, I thought it unsafe to delay longer, and operated on April 21. I was surprised to find no cyst. The fluid escaped on opening the peritoneum. It was of a dark wine color, and we measured of that which was collected 10 pints. Upon enlarging the opening, we came upon a soft mass which appeared to be cancer of the ovary. Upon both sides and underneath it was unusually adherent. Separation was safely effected, and the soft pulpy mass larger than a child's head, removed. The surrounding tissues were studded with hundreds of little protuberances.

The abdominal cavity was carefully washed out, and a glass drainage tube left in. Convalescence progressed slowly.

She left my hospital in 5 weeks quite recovered from her operation, but with so many evidences of cancer developing that she was not expected to survive long.

CASE XVII.—*Menstrual Epilepsy—Inflamed Uterine Appendages—Injury from Fall—Spasms Ceased—Ovaritis, Peritonitis—Ovarian Abscess—Removal of Tubes—Recovery.*

Miss G., aged about 25, had been a sufferer from men-

strual epilepsy and complete suppression of her menses for a number of years. Dr. Bayne asked me to see her with him four years ago. The uterine appendages were known to be in a state of chronic inflammation, and I advised their removal. Objection was made, and further treatment was resorted to. In one of her convulsions later on, she fell down stairs. As a result of her injuries, she remained unconscious 3 days; and, curiously enough, she had no more spasms, and a modified menstruation came on at about the usual interval. For a period of 3 years and 5 months she was only able to void her urine through a catheter which she finally learned to use for herself. A long course with the Faradic current succeeded in restoring power to the bladder, but the ovaries increased in size and became very painful. An attack of pelvic peritonitis kept her in bed 6 weeks. She recovered sufficiently to sit up and walk about her room. This was all she could do. She had fever at night and frequent exhausting night sweats. Indeed, she presented all the symptoms of chronic septicæmia. She evidently had a collection of pus somewhere, and it was doing its usual work.

She lived about 3 miles from my house, and as my work was in the nature of "bread cast upon the waters," I preferred waiting the many days for its return in my own hospital rather than to drive at least twelve miles daily in paying the necessary visits. I received her, therefore, and at the operation found one ovary converted into an abscess holding two quarts of horribly offensive pus. The other ovary was as large as a lemon. Both ovaries and tubes were removed, the abdominal cavity was thoroughly washed out, and a glass drainage tube left in. The wound was closed and dressed in the usual way.

Miss G. made a slow recovery, but finally got well, and went home seven weeks after her operation. She came in to see us a week ago looking well and hearty, having gained over 20 pounds and acquired a healthy color. From being house-bound for 6 months, and a suffering, hopeless invalid for 6 years, she was now quite able to help herself, and was intending to do all the housework, while her mother tried to earn some money outside.

She had been under the care of Drs. McKim, Bayne, Cuthbert, and others, and they are all familiar with the history above narrated.

CASE XVIII.—*Rare Case—Tumor Resembling Abdominal Cancer—Opened—Blackish Fluid Evacuated—Apparent Cure—Diagnosis not Made.*

Mrs. A. was sent to me by Dr. Pyles, of Anacostia. She lived at Shepherd's Station, opposite Alexandria, Va. She was married—the mother of 3 children—the youngest being 6 months old. She was found to have an abdominal tumor during her last confinement. She thought it had been coming on for a year. When I saw her she had been confined to her bed for some time on account of a smart attack of peritonitis, caused, the doctor thought, by intestinal obstruction produced in some way by the pressure of the tumor. The mass was rather tender, and manipulation was too painful to allow of a thorough examination, but enough was learned to make us quite doubtful as to its origin and connections. It did not seem to be connected with the ovaries or uterus, and while it dipped deeply into the abdominal cavity, yet it seemed to be a part of the abdominal wall. We were all certain that it was an abnormal growth, that it was giving a great deal of trouble and pain, and that consequently it ought to come out, if its removal could be accomplished without placing the patient's life in any more danger than menaced it already. Patient and family also wishing its removal, she was taken to my private hospital the last week in February, and she was operated on the 5th of March.

Before operation, Dr. Busey saw her with me. After carefully examining the patient and the tumor, he agreed with us in the opinion that he did not know exactly what it was, and in the further opinion that an exploratory incision should be made and the mass removed if then found possible. Its malignancy had been suspected by us all.

Operation.—In the presence of Drs. Busey, Pyles, Cuthbert, and Luce, I cut into the mass at the level of the umbilicus—its most prominent point—and about an ounce of blackish pus and fluid escaped, leaving a black-looking cavity resembling the appearance of melanotic cancer. The abdominal wall was involved, and it did not seem possible to get through or under the mass. The incision was prolonged to at least 5 inches, and in places 2 and 3 inches deep. Attempts at enucleation produced copious hæmorrhage. No beginning or ending to it was found, and yet it could be mapped out as large as a child's head. All present believed it to be cancerous, and upon their advice I desisted from further effort. Cleansed, closed, and dressed the wound

antiseptically, leaving in a rubber drainage tube. I informed the husband of the condition of his wife, and expressed the fear that she would not live 3 months.

She is now apparently well. The tumor cannot be felt, and she has every prospect of outliving us all.

Just exactly what the tumor was I am not prepared to say. I know it was there, and I know I did not remove it, and I know that it is not there now. Where it has gone, or what it was, I do not know. It may have been one of the *desmoid* tumors recently written about by Dr. Ill, of Newark, N. J. (see *Transactions of the American Association of Obstetricians and Gynecologists*, Vol. I), or one of the tumors of the urachus described by Mr. Lawson Tait.

She was in my office yesterday looking fat and hearty, and said she was feeling very well. There is a small portion of the wound yet unhealed where the drainage tube was, but it gives her no trouble.

CASES XIX and XX.—*Ovarian Tumors—Removal—Cure.*

These cases were very much alike in some points, and unlike in others. They both had ovarian tumors—were both 61 years of age—both came to my hospital and had their tumors removed—and both got well. One was sent to me by Dr. Gardner and the other by Dr. Ober. In one case the tumor had only been growing 1 year, and had given trouble for but 3 months. In the other, its presence had been known for 10 years, and it had never given any trouble except from its size. Both tumors weighed about 25 pounds. Convalescence was disturbed in both cases by irritability of the bladder.

I regret the constant use of the personal pronoun in this statement, but it is difficult to avoid in a report of one's own work.

ART. II.—Rupture of Aneurism of Abdominal Aorta and Perforation of Diaphragm—Case—Remarks.

By WM. F. DREWRY, M. D., of Petersburg, Va.

ASSISTANT PHYSICIAN CENTRAL (VA.) LUNATIC ASYLUM.

J. H., a negro, native of Virginia, 60 years old, from early manhood till a few years ago a sailor, was received into the

Central Lunatic Asylum March 15th, 1889. Upon a thorough examination, noting carefully every symptom, the location and character of pain, pulsating tumor in the epigastric region, to the left of the median line, the *aneurismal bruit*, and other *peculiar* symptoms, made apparent by manual examination and auscultation, we diagnosed *aneurism* of the upper third of the abdominal aorta. The usual treatment for such cases, with iodide of potassium, acetate of lead, anodyne embrocations, and so forth, was prescribed. Perfect *rest*, as far as possible, was enjoined; and his diet was carefully restricted.

On the night of May 17th he died suddenly while asleep. *Rigor mortis* had set in before we were aware of his death.

Assisted by Dr. Baker, of Richmond, and Dr. Barker, of the medical staff of this institution, I held an autopsy. In the upper half of the abdominal aorta, in the vicinity of and involving the orifice of the cœliac axis, and arising from the anterior face of the aorta, we observed a false sacculated aneurism, with a mean diameter of six (6) inches or more. It was intimately adherent to the adjacent tissues, and encroached somewhat upon the spinal column. The sac had ruptured, perforating the diaphragm, and the contents had escaped into the left pleura.

This mode of termination of abdominal aneurism—*i. e.*, by rupture and perforation of the diaphragm, etc., is not, I believe, of frequent occurrence.

Dr. George Ross, of Montreal, in his article on Aneurism in the *Reference Hand-Book of the Medical Sciences*, edited by A. H. Buck, M. D., New York, writing about abdominal aneurism, says: "*Even* the diaphragm may be perforated, rupture then occurring into the left pleura, lung, primary bronchus, or into the pericardium."

As to the comparative frequency of aneurism of the abdominal portion of the aorta, I refer to the following statistics: Of 551 cases of aneurism of the aorta tabulated by Crisp, only 59 were abdominal—10.7 per cent. Of 880 cases collected by Sibson (Sibson's *Medical Anatomy*, 1869), only 177 occurred in the abdominal portion—20.1 per cent.; and of this number 131 were located at or near the cœliac axis. Of 103 cases of abdominal aneurism collected by Lebert, only 3 occurred at or near the bifurcation. In the report in

the Transactions of the New York Academy of Medicine of recent date, I noticed that Dr. Hermann M. Biggs, of New York, reported a series of 33 cases of aneurism of the aorta, only 4 of which were in the abdominal portion. Autopsies were held in every case. Again, according to Dr. Sibson, less than 50 per cent. arise from the anterior face of the aorta, and the variety of aneurism, the so-called false, and the form sacculated in 60 per cent.

As to the termination of the abdominal aneurisms, the same author says: "77 per cent. rupture—28.5 per cent. into the peritoneal cavity; 22 per cent. into the sub-peritoneal tissue in the left hypochondriac region, etc.

ART. III.—**Yellow Fever Epidemic of 1887 and 1888 in Flo - ida—Testimony of Dr. George Troup Maxwell.*—Correspondence with Prof. Joseph Jones, M. D., of New Orleans, Louisiana.**

"JACKSONVILLE, FLA., March 9th, 1889.

PROF. JOSEPH JONES, M. D., New Orleans, La.:

"*My Dear Doctor,*—Please accept my warmest thanks for your favor of the 20th ult. Your review of the report of the autopsy of Mr. Proctor by the pathologist of the Health Department of New York city is invaluable to me, and will complete the abundant testimony I have collected to show that that great man was sacrificed to what the *Courier-Journal* called the "cruelty of cowardice."

I am sorry that I have not the data upon which to base an opinion of my own as to the origin of yellow fever in 1887-'88. I will send to you such facts as have been made public.

I was at Tampa in 1887, and saw a condition of things evincing an utter disregard of hygiene; and the surprise would have been greater had not pestilence accepted the cordial invitation to enter. I came to Jacksonville the day before the panic on the 9th of August, ignorant that there was a suspicion of the prevalence of yellow fever, though I predicted it early in June. The city was declared by the health officer and by the Duval County Board of Health to

*Read by Dr. Joseph Jones before the Eleventh Annual Meeting of the Louisiana State Medical Society, April 10th, 1889.

be in "perfect sanitary condition—that if yellow fever was brought here it could not spread." Nevertheless, when the Sanitary Committee of the Auxiliary Association commenced operations on the 14th of August they developed a condition of filthiness that was simply disgraceful. As the *Times-Union* expressed it at the time, the Committee was unearthing and removing "tons upon tons of filth daily, from the yards and houses of Jacksonville." From one yard in one of the most central-residence streets 21 cart loads of filth were removed; and the most disgustingly filthy lot in the city, upon which 51 persons, mostly colored, lived, was under the charge of the President of the Duval County Board of Health.

There was nothing specially noticeable in the character of the yellow fever, and there were at the same time, that is during the fall, many cases of the different types of malarial fever, and some cases of dengue. Almost all the doctors sweated their patients incontinently, "cooked them," as the venerable Judge Olin, of Augusta, Ga., called it. Blankets were piled upon them. I saw one young woman with a feather-bed and two blankets on her, and was told that her physician said "the more she *stunk* the better it was for her."

My own plan was to make and keep the patients as comfortable as possible, opiates to relieve pain, gentle aperients when bowels were torpid, cool, but not cold drinks, and a hopeful frame of mind encouraged by cheeerful surroundings. The disease being self-limited, I stood by as the friend of the patient, aiding defaulting organs, if possible, till the combat was ended. I have no cause to complain of results, having lost only 11 of a few over 200 patients.

The comparative mortality records here are wholly unreliable. Everything was called yellow fever, and I have no doubt that hundreds of cases were reported, that free rations "might be obtained," (for the Auxiliary Committee and the representative of the U. S. Marine Hospital Service ruled that none but yellow fever subjects should be the recipients of the funds furnished so liberally by the charitable people of the country, and the government) of persons who did not have a finger ache. I know one case of gonorrhœa, which was reported as yellow fever, and the yellow flag and two guards were kept in service for about a week.

You state in your work on Fevers, and I concur with you, that "an Auxiliary Association is a reproach to the health and municipal authorities;" but the Duval County Board of Health did not thus think, for they had a representative

daily in attendance upon the meetings of the Auxiliary Association of Jacksonville, and asked and followed the advice of those laymen in matters of hygiene. Thus they became so completely overshadowed that the citizens only knew them by acts of petty tyranny upon the objects of their sphere.

I am sorry I could not give you more definite facts of the disease as it appeared in Florida during the last two years.

I must say before closing that it strikes me as strange and unaccountable, only by the ignorance and timidity of those having place and power, unless it be that they had sinister motives, that an epidemic of yellow fever in Tampa the *fourth* in the history of the place, and in Jacksonville the *third* in its history, should create such a wide-spread panic, when it has visited Boston *ten* times, New Haven *six* times, New York *sixty-three*, Philadelphia *thirty-four*, Baltimore *fourteen*, Charleston, *fifty-two*, New Orleans, *sixty-five*, etc., etc., with nothing like this unreasoning terror. My opinion is that, if many of the so-called health officers of the U. S. and State and county governments were put in straight jackets and treated for lunacy, and suitable sanitary measures were employed, we would have no use for barbarous quarantine, shot-gun or any other; there would be fewer yellow fever epidemics, and no panics, for it is to man himself, and his neglect of laws governing health, and the sanitary condition of his abode, that we must look for the exciting causes of epidemics.

Very truly your friend,

GEO. TROUP MAXWELL.

P. S.—Let me add a post-script to my imperfect account of yellow fever as it appeared in Florida during the last two years, to speak of the *pretense* of disinfection as practiced in Jacksonville.

In view of the facts that fumigation with burning sulphur has been completely abandoned by Germany, Austria and Russia; and is employed in France only in the most rigidly thorough manner, proportioning the amount of sulphur burned to the cubic area of the room or house to be disinfected—placing on the floor or on tables all the objects which have been in contact with the patient, stopping up the chimney and closing the windows and doors, pasting paper over all crevices, and continuing the process *for at least* 24 *hours*, the method pursued here of sending ignorant persons to burn a handful of sulphur without regard to the dimensions of the rooms or of their ventilation, most of them being more open than the ordinary plantation

storehouse, and, in places, sprinkling a little solution of bichloride of mercury with a common garden watering pot, can only be characterized as *the veriest burlesque.*

That a fair idea of the absurdity of the method employed have for disinfection of places with the mercuric bichloride, applied with a garden watering pot, may be found, let me describe the method in use at Berlin:

"The disinfectors take with them the following objects: 1st, A mask or face protector lined with antiseptic wadding; 2nd, A wire basket with three compartments, holding a large bottle and a spray apparatus; the bottle contains a disinfectant liquid; 3rd, A case containing implements and brushes; 4th, Linen sacks of different forms to hold objects to be removed from the building.

The disinfector, for one man here does the work, makes bundles of all the objects found in the room. He burns things of little or no value; then he scrubs the floors, walls, furniture, windows and doors with brushes and sponges, soaked in a 1 per 1000 solution of corrosive sublimate. As for the metal objects, he rubs them over with vaseline, and subjects them to fumigation with chlorine. The objects placed in bags are put into the covered wagon and carried to the disinfecting station, where they are subjected to the action of high heat.

The disinfectors are obliged to take the utmost pains in personal cleanliness. When the disinfector enters the apartment where he is to operate he puts on a long linen cloak, which, after he gets through with his work, is brushed and cleaned with a carbolic solution. This cloak is worn only in the contaminated dwellings, and before leaving the latter the disinfector makes a special bundle of it. Just before making up into packages the objects which are to be conveyed to the hot steam room, the operator places over his face a mask lined with wadding; this is removed and burnt after the completion of disinfection. Lastly, every evening at the close of the day's work, which lasts from seven in the morning to seven at night, the disinfector takes a bath and washes with great care his hair and beard."

The foregoing is extracted from the lecture on disinfection—the sixth of his series on Prophylactic Hygiene, by Prof. Dujardin-Beaumetz—*Therapeutic Gazette*, Feb. 1889.

Very truly yours, etc.,

GEO. TROUP MAXWELL.

The following paper accompanied Dr. Maxwell's letter:

Yellow Fever.

So much has been said and written about Tampa and the yellow fever that it would not do to allow this article to go out without giving the subject a prominent place in it. With this view in my mind, Dr. John P. Wall was called upon and asked to give the writer his views upon the recent epidemics of yellow fever here, and the truth as to its introduction into the place. No man or physician stands higher in this community than Dr. Wall, and his reputation as an able physician, intellectual man and a cultured gentleman has gone all over the United States. As an expert in these matters his word is certainly entitled to much weight and credit, and we will give his exact language. "The fact is established beyond question or doubt that the first case of fever appeared here among the fruit dealers and their associates; and that after June 4th the Plant Line of steamers brought no fruit from either Havana or Key West for the remainder of the season; nor had any of those first attacked by the fever been either to Key West or Havana on the Plant steamers during the season. Nor did a case of fever appear in any one who had come from either Key West or Havana during the season, nor did any one with whom such passengers came in contact in private dwellings or boarding houses. The American passengers by the Plant Line of steamers from both Havana and Key West during the summer were mostly on their way to New York and other northern cities. Those who stopped in Tampa from both Havana and Key West were, as a rule, Cubans, originally from Havana, and who are, as it is well known, already acclimated to yellow fever; moreover, the Cuban population of Tampa live almost exclusively in a quarter of the city to themselves, more than a quarter of a mile from the thickly populated limits of what is known as "Old Tampa." Between this Cuban quarter, called "Ybor" and the town proper, there are a few scattering houses and several orange groves of from two to six acres in extent, and communication between the two places is by a steam street railway.

Now, it seems that cases of fever occurred almost simultaneously, about the middle of September among the fruit-dealers in both Ybor and the old town of Tampa. The first victim was an American named Frank Turk, who died on the 22nd of September. He was a fruit-dealer at Ybor, but resided about one hundred yards outside of Ybor. This man's relatives claim that there was an Italian fruit-dealer

sick shortly before Turk was taken ill, and that Turk got the disease by using this Italian's blankets. It is furthermore acknowledged by them that this use of the Italian's blankets occurred when absent from Ybor, on a camp hunt. The name of the Italian was Pape, who soon afterwards disappeared.

The first case of fever in the old town that my investigations have enabled me to identify was an Italian fruit-dealer named Louis Moses. He was sick on the 16th of September, and had probably been sick a day or two then. An Italian youth nearly grown, staying with Moses, was also sick about the same time. An Italian tailor named Benita sickened on the 26th of September, though the nature of his illness was not recognized till the 5th of October, when I was asked to see him. On the 12th of October I saw two other Italian peddlers who had been sick eight or ten days. Both of these died on the 14th of October. There were, however, a few cases of fever in the latter part of September among Americans in the old town; but in every instance almost I have been able to trace these people to the places of these fruit-dealers.

These facts show pretty conclusively that the fever began in Tampa among fruit-dealers who obtained their fruit from small boats plying down the coast after fruit, all of which I have since learned visited Key West, and then, on returning, evaded the quarantine on the Bay, which was easily accomplished in a bay six miles wide. I have since learned also, from a prominent citizen, as well as numerous others, that smuggling was carried on during the whole season, the boats finding safe retreats at many different points along the extensive bay shore.

It is deemed worth while to mention these facts to correct the erroneous conclusion jumped at by the public as to the responsibility of the Plant Line of steamers for the introduction of the yellow fever into Tampa in 1887. These steamers began to ply twice a week between here and Havana, *via* Key West, in February, 1886, and during the summer of 1886 brought at least two thousand Cubans from Havana to become residents of Tampa. Last year no case of fever or any infected goods could be traced to these steamers, and this year they have not introduced any fever or infected goods into Key West from either Havana or Tampa, though touching at Key West four times a week from infected places, and taking passengers from those infected places to Key West every trip. Nor do I believe that

the fever would have got into Tampa last year but for the stringent prohibitory quarantine restrictions against freight and fruits being brought from Havana by these steamers which incited smuggling and clandestine communication with Key West. During the quarantine season, from the 1st of May to the 1st of November, these steamers are not permitted to remain in Havana at night; in fact, do not remain over seven hours in the day, entering at 6 A. M. and leaving at 1 P. M.; do not go to the wharves, and all suspected persons and goods are excluded from taking passage or being put aboard; no soiled baggage and no beddings are allowed to be brought, and finally, what baggage is taken aboard is fumigated with sulphur in the hold of the ship *en route*. All this is done under the supervision of Dr. D. M. Burgess, United States Sanitary Inspector for the port of Havana. The bilges are treated twice a week with disinfectants—alternately with mercuric chloride and chloride of lime, and the ships subjected to thorough medical inspection at Havana and Tampa every trip to see that they are kept in first-class sanitary condition. They are, moreover, new iron steamers, which vessels all admit are not to be classed with wooden vessels in a sanitary point of view.

In view of all the facts—those relating to the appearance of the fever in Tampa in 1887; the non-appearance of the fever in 1886, when there was a large immigration to Tampa from Havana, with no restrictions on fruit and other freight, and consequently little if any incentive to smuggling; no fever having been introduced into Key West this year by these steamers from either Tampa or Havana; and last but not least, the extraordinary care exercised by the Plant Company to not only avoid being the means of introducing yellow fever into the United States, but to prevent their ships from becoming infected—I feel fully justified in making the declaration that the yellow fever was not introduced into Tampa in 1887, or at any time prior or subsequent, by the Plant Line of steamers.

The Company's code of sanitary regulations for the ships, to be observed by their officers, and the quarantine regulations of the ports of Key West and Tampa, embody the principles, so far as applicable, of the Technical Commission of the International Sanitary Conference of Rome in 1885. These regulations exclude suspected persons as passengers, not acclimated to yellow fever by a previous attack, or nativity in a place where it is epidemic; soiled baggage, all bedding and all freight which the United States Sanitary Inspector

cannot certify to as being uninfected. A single passenger aboard without the certificate of acclimation from Dr. Burgess, the inspector in Havana, subjects the ship to ten days quarantine.

The true principle to be observed in all quarantine regulations is that of exclusion, at the infected port, of persons liable to bring the disease to the home port in the incubation stage, and all infected goods or baggage. This is by all odds much safer than to depend on providing for the sick—for detention is for the purpose of seeing if they will become sick, and disinfecting baggage and freight at our doors, as it were. This principle is recognized by the sanitarians of Europe, and acted on by England, and applies with special force to first-class iron steamers intended for travel and rapid transit. Of course for sailing vessels and an inferior class of steamers, and especially for those remaining at night in the infected port, it would not hold good. Tampa had visitations of yellow fever long before the Plant steamers were ever put on, and the people here who are clearly mostly interested in keeping it out of their homes, look upon the steamers, sailing as they do under the above mentioned regulations, as an actual safe-guard against the introduction of yellow fever or other diseases.*

The foot-notes to the following account of the *Epidemic in Jacksonville, in the Year* 1888, by Dr. Charles E. Poujaud, are from the pen of Dr. Maxwell, except those signed with initials J. J.

In the *Preface*, the author says: "In writing this pamphlet, I have endeavored to adhere strictly to facts, without prejudices against any one; for where errors have been committed, and some of these by individuals, I appreciate highly, I believe they have had their origin in inexperience, and that alone; but in pointing them out I do so to guard our people against future troubles, and that we may do all that is necessary to make our city a healthy one, without proceeding to measures which may prove more fatal than disease, and still fail to give us that immunity we desire."

THE CONDITION OF THE CITY was every way favorable for the generation and development of *fevers;* and notwithstanding assertions made in the early part of August, that owing to the healthy state existing, the fever would soon be stamped out, the results proved the fallacy of the assertion.*

*Dr. R. P. Daniel, member of Duval County Board of Health, and just appointed to the State Board, said in August last that Jacksonville was in such an excellent sanitary condition that yellow fever could not spread if brought here.

It required but a very superficial observation to know that in case of any existence of fevers peculiar to a tropical climate the same would soon be developed into an *epidemic.* Cesspools were found in different parts of the city. Stagnant water under the very floors of stores on West Bay street; the stench from water closets and privies saluted the passers by in the vicinity of many of the thoroughfares on Ocean, Pine, Hogan, Julia, Forsyth and other streets--notably so on Ocean, in the vicinity of the Lund House, where the rising tide of the river St. Johns would prevent the exit of the filth, which would find its way to the stream. There was an accumulation of filth in the *drains and sewers,* an accumulation of water filled with vegetable decay at the base of hills forming part of some of our principal streets, Adams, Monroe, Market, Cedar, Clay, etc.; and a large number of yards in the eastern, western and northern parts of the city had their surfaces more or less covered with stagnant waters in a state of inertia, *under the very dwellings;* the bulkheads of the river front indicated a mine of filth. Yet, in the presence of all this, a *confidence* in *the situation* was *ill-placed* by *those who guarded* the *public health,* who it appears only awoke to the sense of danger on the 14th of August, or days after an *epidemic was declared,* as *then only* it *was determined to proceed to a thorough cleansing of the city.** St. Luke's Hospital, *on dirty filthy Hogan's creek, was pronounced in a salubrious position, even at that period;* yet in the *vicinity of the waterworks, above and below,* on *the borders* and in *every direction,* filth and foul odors greeted the citizen who happened to pass that locality. The picture I have portrayed is even short of facts, and the declaration under date of the 21st of September, that Dr. Kenworthy, City Health Officer, with a force of twelve men had *cleaned* 367 *closets in six nights* is *quite sufficient testimony* of the *uncleanliness* of Jacksonville. On the 13th of August, with the thermometer ranging *from* 95° *to over* 100°, *the cleansing was being put in practice,* and in opposition to a policy of forbearance, and to an ordinance of the city which forbids surface upheaval during the summer, *which should have been observed,* the large amount of miasmatic matter *then* in state of *inertia* was placed in *movement* and more *extensively developed* in our *atmosphere* as *shown* by the *increased number of cases of fever* as the work went on progressing.

*This was not done by the health officials of this city or county, but by the Auxiliary Association.

Now let us look at the ORIGIN OF THE FEVER:

It was announced by the Board of Health that on the 28th day of July a man arrived in Jacksonville direct from Tampa, who, they afterward ascertained, had been but recently in Plant city. That man was sick when he arrived and soon developed the distinctive symptoms of yellow fever; then he was removed to the Sand Hills, *three miles* from the city, *and all possible precautions taken to prevent the spread of the infection.* This man was McCormick. On the 8th of August the Board of Health announced that four other cases had shown themselves,—one of them from Orlando, W. H. Blake by name; *but this statement met with an immediate denial* by the Mayor and Chairman of the County Board of Health of Orlando, which city *was declared never to be healthier.* Now, was McCormick the introducer of the fever in Jacksonville? If so, how was it that simultaneously it *broke out in a different part of the city at extreme points,* without there being any *contact whatever between the parties,* or McCormick *visiting the locality* where the other cases, *said to be yellow fever, appeared?* No, I state here positively that *as early as the beginning of June there were many cases of fever prevailing* in Jacksonville proper, and in LaVilla; and in July, in the latter suburb, one physician alone had thirty-six cases, yet no one thought of classifying them as *yellow fever cases;* they were treated as *remittent fevers* and successfully. It would seem that McCormick's appearance on the scene was the signal to sound the "*panic trumpet,*" and announce to the world that our *city was infected by a plague;* that we were beset by an epidemic, and what epidemic? *According* to our Board of Health it had *four cases* in a population of 35,000! Epidemic signifies *prevailing—a majority.* Would four cases constitute a majority of 35,000, or did our health officers multiply the heads of the Hydra in their excited imaginations? Poor McCormick and the Plant Line of steamers were undoubtedly connected in order to trace an introduction of yellow fever from Cuba, but unfortunately the chain of evidence is broken by that stumbling block, the May Flower Cottage, where other cases are made to appear, or in vicinity, simultaneously. To the 10th of August *twelve cases* were announced, *all* as *yellow fever,* among which a lady, who had had a *fausse couche,* a *Cuban thoroughly acclimated;* another party, who was out on the street the third day, completely well.

If these three, representing 25 per cent. of the cases, are specimens of the Yellow Jack, what conclusions must be

drawn therefrom? To the 14th of August, date when the determination to cleanse the city was taken, *when the earth commenced to be dug, drains and ditches made and stagnant water placed in motion*, the total number of cases announced by our Board of Health was twenty-five, total number of deaths four. From that period to the *29th of August, or fifteen days afterward*, 140 *additional* cases were announced, or total 165 *cases*, showing that additional miasma in our atmosphere had also *augmented seriously* the *number of cases of fever*, and the number of deaths were also increased to 23. But what shall we say of the sequel from the 29th of August to December, when the cases were made out to have been total 4,705, showing an augmentation of over 4,500 cases in three months in a reduced population of 13,757 inhabitants! That is to say, these official reports make out that over one-third of the population in those three months were sufferers from yellow fever. But, oh! remarkable, and wonderful achievements that surpasses any record in the history of yellow fever epidemics, our Æsculapians,* nine-tenths of whom *had never seen a case of yellow fever before, were more efficient* than our experts of New Orleans, Key West and Charleston, and the oldest practicing physicians of Cuba, who are glad to be able to reduce the mortality bill to 10 per cent.—ours was only about 8 per cent. It is true the old experts use simple methods, and the world seems to think they are pretty successful; but with 8 per cent. mortality in the face of *experimental tactics*, the methods employed deserve investigation, and no doubt the *recipés* at our druggists would furnish *desirable information*. The existence of fever as *early as June*, its rapid development in September after the ground had been disturbed, and under the effects of a tropical sun, which would point out *the fact* that we *owe* to a *local source* our late epidemic, and not to an importation: Was this epidemic one of yellow fever or one of sundry fevers? Observation and data from some of our physicians who did not agree altogether with the Board of Health indicate strongly the latter. From observations in June, July and the first eighteen days of August, the symp-

*The Board of Health turned loose upon the dev ted citizens of Jacksonville a few less than a score of men to treat yellow fever, three-fourths of whom had never seen a case of the disease, one being a druggist, one an engraver, two eclectics, one also did dot know now to write a R.; not more than ½doz having experience in yellow fever. Yet with these men, the Board of Health, by the use of money sent from abroad, maintained a successful competition with home physicians, most of whom are men of intelligence and some of whom had had experience with yellow fever.

toms displayed by patients were the same as those observed in over 95 per cent. out of about 1100 patients, visited by several of the physicians in opposition, some of them being old *practitioners* in *yellow fever cases.* Not over 2½ per cent. exhibited *any symptons at all* of yellow fever.

What do high medical authorities say of remittent fevers? I shall quote: "*It is most prevalent and fatal, when high temperature and malaria act in combination,*" *the defervescence is not complete, the more urgent symptoms between one exacerbation and another abate—in some cases well marked,* IN OTHERS SO SLIGHT, THAT THE PERIOD OF SO-CALLED INTERMISSION MAY ESCAPE THE NOTICE OF ALL BUT A WARY AND EXPERIENCED OBSERVER. *Symptoms of gastric irritation are the first of approaching disorder;* the *patient complains of precordial anxiety,* ANOREXIA and NAUSEA, with *weariness, languor* and *lassitude; uneasiness amounting to oppression at the epigastrium is sometimes present for* 24 *or* 36 *hours before the setting in of the cold stage.* Duration 5 to 14 *days,* which is much affected by treatment; the fever terminates in recovery, intermittent type or death. When to recovery, it culminates into a profuse perspiration. Death seldom before eight days, WHEN LATER, FROM EXHAUSTION OR MORBIFIC CAUSE. *Tongue furred* and *dry, pulse high, countenance flushed, rending headache, with pains in the limbs and loins, heat ardent and restlessness.*

What is said of malarial fevers?

"It is generated in greatest abundance in marshes which contain a high percentage of organic matter; hence the name by which it is familiarly known, viz: *Marsh miasma.* It is often found in *sandy soil and arid* looking plains devoid of vegetation; but in such cases the soil will be found to contain a considerable proportion of *organic matter and water,* not *far from the surface and keeping up evaporation.*"

Hosel says: Fever is the intoxication of the nervous system by *chemical poisons circulating in the blood.*

Flint: Fevers, especially those belonging to the class of *acute diseases,* are *self limited* in *their duration;* and *are due each one to a special cause;* the intensity and persistence *which endanger life* are usually *proportionate to the elevation of temperature.*

Glax says: The *ingestion of fluids* increases the temperature of fevers. *During fevers* there is apparently a *retention of fluid.* The rise of *body heat* is in *direct ratio* to the *accumulation of fluid* in *the organism.*

Lowenberg advocates prompt evacuation and disinfection of the bowels; increased activity must be given to the nat-

ural excretory organs, as the kidneys, intestines and respiratory tract.

Charcot has shown that *albuminuria* may *result from delayed blood flow through the kidneys.*

Jacobi: The mucosa of the alimentary tract is *inflamed or ulcerated; digestive disturbances occur,* and *vomiting* and *diarrhœa also.*

Francis Duffy says: The digestive laboratory is *crippled and incapacitated* from performing its functions; we cannot *rebuild the edifice* while the old *one is yet in flames.*

I have made the preceding quotations with two objects in view, first that it may be seen by those who experienced the fever, or by their friends or by those who observed carefully many of the cases of the epidemic, that they partook of the symptoms of remittent or malarial fevers; second, that by observing the system of diaphoretics, diuretics, light purging and *proper diet and quinine,* the result was favorable, as is generally the case in such diseases; whereas, *where heavy drastics* and *exhaustive depletions were used* the *patient rarely recovered,* though he *had no yellow fever.*

Great stress was placed on the *retention of urine* as an indication of yellow fever, yet this is a symptom common to remittent fever. The appearance of a small quantity of albumen, and in some cases where it was of doubtful existence, placed the patient under the *yellow flag,* and I see by a recent statement of Dr. Gibier that in cases where the autopsy of the body was effected, it *failed to exhibit the symptoms of yellow fever.* Hence we have sufficient proof that our late epidemic was mostly of remittent, malarial or paludal fevers, with a FEW CASES of *typhoid* and *yellow fever.* It is remarkable that from the 28th of July to the 1st of December, or during the reign of our Board of Health, NO ONE DIED *in Jacksonville* of ANY OTHER DISEASE but YELLOW FEVER; our city, it seems, was a pandora box, whence all diseases escaped, leaving only *yellow jack* and *hope* behind. This is accounted for in the fact, that though a patient might *die from any other fever than yellow,* all *assistance was refused* unless *his case was reported* as of the latter type, it being held that all *subscriptions and moneys had been made* for the *exclusive benefit of yellow fever patients,* and therefore they must die from want of aid or assistance unless classified as yellow fever patients. To get over this, many physicians announced their patients as being with the *prevailing fever, without particularizing.* The decree of the Board of Health on the 8th of August, ordering all physicians to report without delay any and every case

of fever occurring in their practice, which should last continuously twenty-four hours, perhaps had also much to do with the many cases of yellow fever reported, so much so, I am assured, that one physician reported over 900 cases in about three months, and we *all wonder how he could attend them all!* Dr. Joseph Porter of the United States Marine Hospital Service, who is an expert and who has given satisfaction in every way, and to all, it is said remarked that the numerous cases referred to (900) might possibly bear a new nomenclature, "*centralized fever;*" if so, the doctor, it seems was correct.

Yellow fever.—Though much has been said and written on yellow fever, so far all that has been done is a certain progress in its treatment, by which the bills of mortality have been reduced. The theories as to its origin and its importation are mere theories, and mostly without foundation in facts. In 1647 it appeared in the West Indies, and it was supposed to have been introduced there by the French frigate Oriflamme, from the fact of its appearing on board of that vessel after a long voyage of several months from *Siam* to Rio Janeiro and thence to *Guadeloupe*, one of the French West India Islands. But why should it have been an importation? Why was it there was no appearance of the disease during that long voyage? Why its non-appearance until the vessel came to anchor on a low coast covered with mangrove, and exposed to a tropical sun? Why could it, considering the conditions of coast and climate, not have originated in Guadeloupe, and be a native of that Island, as well as of all the other West India Islands, and of all places between thirty-five degrees latitude and the equator, embracing all our Southern coast from South Carolina on the Atlantic to Texas, at the mouth of the Rio Grande and the coast of Mexico? We have had this fever in epidemic form in South Carolina, Georgia, Florida, Alabama, Louisiana and Texas. Charleston, Savannah, Fernandina, Cedar Keys, Key West, Tampa, Pensacola, Mobile, New Orleans and Galveston have been scourged by it, and in fact all such places where offal, filth, stagnant water with infused animal and vegetable matter are more than predisposing conditions, to which we may add sultry weather, previous light rains, and high temperature. No place *where it exists* but strives to disown its *origin there*; none desire to grant it parentage, and all shuffle—all advocate its introduction from somewhere else. Its yellow tail and black tetra-head seems to drive people to the most illogical conclusions. South Carolina had it early in the

seventeenth century, but it was not yellow jack, you know, oh no! It was stranger's fever, country fever, and it went by any other name. In the West Indies, it is *acclimatation fever when not epidemic;* in Georgia, hemorrhagic or country fever; in our dear Florida, where we like to boast of our *lovely tropical climate*, and show in flowery language all *its advantages*, we strive to make it appear we *are not subject to tropical diseases*; and therefore we have only malarial, typhus, remittent, intermittent, typho-malaria, but never yellow jack, which is made to be an importation. In 1840 I landed in Matanzas, Island of Cuba, which then contained a population of 11,800 inhabitants. Its situation was low, with two rivers, the San Juan and the Yumuri, flowing through its center and emptying into the bay of its name. Within three-eighths of a mile of the mouths of these rivers the mangrove tree grew luxuriantly on their banks, which at high tide were overflowed, and on the latter receding they were exposed to the roasting sun of the tropics (88 to 90°); and the result was that for several years we had intermittent, bilious, remittent and yellow fever in an epidemic form, and the natives and acclimated were the only parties exempt from the latter. As years went by, the mangroves were cut down, the surrounding grounds were filled in with earth and limestone, or cocoa (adobe); these places were built up, large stone storehouses and dwelling houses occupy the sites, and with a population of 55,000 inhabitants yellow fever is confined to the military hospitals, and this only in the summer months, and the city is quite healthy now, notwithstanding its sanitary condition not being much attended to. This shows that miasma has much to do with tropical fevers, including yellow, and that if we attend properly to our sanitary condition *we can be exempt* altogether.

In a new country like ours, flat, swampy in many places, we must expect fevers in the summer months, particularly while we are developing; but let us take the precautionary measure of having our *cities clean* and we *will have little to fear from an* epidemic. I do not accept the theory of yellow fever being an importation into Florida. I believe it belongs to us, and can be developed under certain unsanitary and atmospheric conditions, but that with *care* it can *remain harmless*. Havana is said to be the great bed of yellow fever; perhaps it is during *the summer months* owing to its unsanitary conditions. Deepen the bay where the Alemendares river and the Zanja empty into it, bearing with them all the filth of Havana in such a way that the waters of the Gulf will

flow in and out with a certain velocity which will carry off the miasmatic productors, and it will cease to be a bed of yellow fever. Two hundred thousand dollars would do the business.

One great trouble is that our people do not fear, and hence do not show panic in epidemics of typhoid, typho-malaria, remittent fevers, diphtheria and other diseases far more difficult to treat than yellow fever; yet you do not see them instituting ridiculous quarantines, double-barrel shot-gun patrols, and other barbarous methods to insure immunity, which even so, does not always succeed, and which they only seem to believe is the proper preventive of yellow fever. Is it the yellow skin they fear? In remittent fevers in epidemic cases, the castings are black vomit of yellow fever, the skin assumes a yellow tinge and a hemorrhagic tendency is evinced, patients passing blood from the stomach, bowels and kidneys.

The views of Dr. John B. Hamilton, that owing to the bedding of the Bolio family yellow fever was introduced into Key West, I do not admit. Why would the disease remain so long *hugging* that *bedding* and awaiting *the cell* of the Surgeon-General? I knew the Bolio family as natives of Louisiana, living a long time in the Saint Charles Hotel in Havana. They were thoroughly acclimated, and I believe they are not responsible for the yellow fever, but rather "to the *unsanitary condition of Key West at the time,* was it due," and the same I say of Tampa; both places in 1886, when I passed there in May, were in a splendid condition for the development of the fever—the loud odors emanating from the debris of oysters were offensive at a quarter of a mile distance.

The theory of origin by microbes is yet under discussion by Drs. Freire, Finlay, Delgado and Gibier. They all differ as to where they are found in the dead body of the yellow fever patient. Dr. Gibier is certain that he finds them in the viscera of the stomach, and for argument sake we will allow that he has, but this does not advance us any. Has he found them in the living being? No. Should he find them, they must be absorbed from the air we breathe or the water we drink, in which case he can find them in the *blood* of the *living patient,* and he can find them by analyzing the air and water. The microbe, after death has ensued, may be the sequence of the disease, but not the productor.

The idea that some people entertain that black vomit is certain death is a fallacy. I *know persons living now*

in the United States, whom I *have seen* cast black *vomit in Cuba;* if not accompanied by nasal and intestinal hemorrhages, they may recover. It is stated that Havana has yellow fever all the year round. Let those who make the statement explain why out of tens of thousands of visitors who go there from October to May not a single case of yellow fever has developed among them. Let us be frank and say to all who come here, that *they can do so* with impunity from any part of the world during *the months above mentioned,* and that they MAY COME SOME SUMMERS, if our towns and cities are clean or in a good sanitary condition; also, that they can get acclimated and live here just as well as over 200,000 Spaniards from old Spain and foreigners from Europe and the United States do in Cuba. I have members of my family who have lived from thirteen to thirty-five years in Cuba and *never* have had the yellow fever.

Diagnosis of Yellow Fever.—Frontal cephalalgia and rending pain in the small of the back. Flush in the cheeks resembling that in tubercular consumption and light offensive to the eyes, which have a glassy expression. Tongue whitish, moist, with a sandy taste in the mouth of the patient, and fur and streaked, the tip and rim being of a deep red. Gums sore, so much so that blood will exude on rubbing with the finger; great development of albumen in the urine, great heat and thirst; pulse will go to 100 to 108 between the first and fourth days, and then recede to as low as 60, *a dangerous period;* the color of the skin takes a bright lemon yellow tint, the conjunctivæ particularly affected, and then turns to a dirty orange; this generally occurs on the fourth or fifth day, and it is observed to spread from the forehead downwards to the face, neck, and chest, and then it becomes general, but yellowness of the skin is not always an attendant of yellow fever, and it is found in remittent and malarial fevers also.

Its course is seven days. On the 3d, 5th and 7th days is when the patient is in greatest danger—the recovery or death is within eight days, but *beware of a relapse,* and the greatest care is needed as to diet I have seldom, in the many epidemics I have seen, observed patients to recover where black vomit was attended with nasal or intestinal hæmorrhages.

Treatment.—1st. A hot foot bath with mustard in it.

2d. A diaphoretic, perspiration to be kept up, but *no depletion,* as the patient will require all his nervous energy to recuperate, the fever being exhaustive.

3d. A purge of castor oil, and then
4th. Quiet and diet.

The alkaloid quinine and citrate of magnesia, with orange tea containing bi-carbonate of soda, and sweet spirits of nitre are beneficial after the foot-bath where remittent fever is suspected.

Sanitary Measures—*Quarantine and Boards of Health.*—Jacksonville, to be free from epidemics, must be placed in a sanitary condition, *in which it is not at present,* notwithstanding the large amount expended for the purpose. The back-houses should disappear and give place to water-closets well-ventilated, and leading to sewers sufficiently deep and leading to main drains *constantly swept by a flow of fresh water, carrying all* to the middle of the channel of the St. Johns, with no chances of the filth being *thrown back on the wharves, bulkheads,* and *borders.* Hogan's and McCoy's Creeks must be filled up altogether; if too expensive, *let their borders be filled up, narrowing the streams,* and the beds deepened and cleaned to produce a certain velocity at the ebb tide, which will carry out the *debris* into the river. Let all those dwellings on the borders be fined heavily for making use of them as a deposit, or throwing offal or anything else into them. Let all low places be filled up by their proprietors, or by the city at their expense after their being notified and neglecting to do so. Dirty waters not to be thrown in the yard or on the street, under a heavy fine to parties doing so. The inmates of each house, during the summer months, to be made to water the fronts of their houses twice a day, under the penalty of $5 fine for neglect. Where block pavements are put down, let a covering or layer of asphalt and sand be laid. To place the city in a proper condition, it is necessary to go to expense, but let it be done. Raise the money by bonding the city for thirty or forty years—the longer the time for mortgaging the less onerous will it be upon the tax-payers. Do all this, and we will have a clean city, freed from the effluvia which now poisons the very breath we respire, and we will no longer suffer from an epidemic of *all kinds of miasmatic fevers as we have had in* 1888.

The establishment of a quarantine system may be effected, *for the purpose of avoiding the contact of infected vessels, or of persons on board having an infectious disease. Beyond this,* any such quarantine would prove destructive to our trade, to our infant manufactories, amounting to several millions, which now receive their supplies from abroad, and to our

passenger trade, which goes up into the thousands annually. Any injudicious system would ruin our cigar factories, forcing them to seek the primary product in Northern markets, where they would be forced to go at competitive ruinous prices, which would soon bring them to bankruptcy or a closing up, and the passenger traffic which, through the energy, perseverance and push of the Plant system, has been brought and carried from our ports, will again flee from us, seeking the old path by the Ward, Alexander, and other lines of communication from New York. Let our Legislature pause and reflect deeply; let our Governor be extremely careful in making appointments, and influences must be cast aside. Only men of mature judgment and ample experience should be selected for health officers, and their powers should be limited to preventing evil, and *not allowed to transgress the bounds of prudence*, applying dictatorial methods to the prejudice of the *health*, of the *wealth*, of the *future of the State.*

As to yellow fever having been introduced from Cuba into a tropical zone in which Florida exists, it is folly, it is absurd; and to state that the Plant line of steamers brought it is *a gross libel.* I have reason to know of the caution this line adopted. I have been a passenger by it on several occasions, and the rigor they display in preventing any infection on their steamers is carried to an excess. No passenger from Havana, or any part of Cuba, is allowed to embark in Havana unless thoroughly acclimated, or showing to have had yellow fever. His or her clothing is subjected to disinfectants prior to going on board, and I have suffered myself a loss of $500, last year, by the destruction of clothing of a member of my family, by an over-zeal in disinfecting practiced in Havana.

Quarantine can only be useful, as I have said before, in preventing contact between infected vessels and diseased persons with localities unaffected, but which may be in a condition to be infected.

For quarantine purposes, select competent officers, with competent salaries and with competent aid. Where a vessel has sickness on board, let her proceed to a quarantine station, a healthy locality, but *not hundreds of miles away.*

Speaking of this reminds me of a worthy physician who appears to have such a dread of Yellow Jack that he found Egmont Key, forty miles from Tampa on the mainland, *too near* for a quarantine station. What will he say of Havana, ninety-six miles from our most southern port, and which

will subsist there in spite of him and in spite of all our quarantine regulations? There is medical authority to show that a body of salt water one mile away is a sufficient barrier. It is a known fact that in several American cities, visited by yellow fever as an epidemic, it has been localized in certain limited spaces, mostly measurable in fractions of a mile. This I have seen in Charleston, where it was localized to Water, Tradd, Elliot, State, Market, Hayne, and East Bay streets, which were in a filthy condition. Quarantines preventing people from leaving a city infected, who are *not diseased*, is a most *stupendous blunder, cruel in the extreme, and an insult to civilization.* In 1821, eighty thousand persons left Barcelona, and they *did not infect the localities or persons they went to.* A train left here for Hendersonville last summer with what our doctors stated to be *yellow fever patients* on board, yet they did not *infect any one in Hendersonville.* A year of the strictest quarantine by the New Orleans authorities proved to be one of its worst epidemics in the fifties. Montevideo, in 1850, kept up a rigid quarantine, and yet it had its yellow fever epidemic, and Charleston and Savannah may profit by this in not relaxing their sanitary measures, or they will wake up to the fact that their quarantine is a delusion, for the disease belongs to them as coals to Newcastle.

In fine, let it be remembered that a good sanitary condition is an essential one to prevent epidemics, *with or without* quarantine; further, that yellow fever, properly treated, is less to be dreaded than typhoid, typho-malaria, remittent or congestive fever; again, that experience has shown that in most cases it is absolutely necessary to be in contact with a yellow fever patient, or in his room, to contract it. I have seen in the Arrieta Hotel in Matanzas over a dozen foreigners, Germans and Americans, unacclimated, who did not take the fever, by merely keeping away from the rooms wherein there were two yellow fever patients, one of them dying from the disease. Often *acclimated persons* assisting yellow fever patients have not contracted the disease, and it is a common thing for physicians practicing at the military hospitals daily, where they had been in contact with scores of yellow fever patients, to return to their houses where quite a number of children existed and none take it. What does this show? It demonstrates that the party or parties attacked must have *their systems in a condition to imbibe this miasmatic poison.* Cleanliness in person and atmosphere precludes this. Unsanitary conditions, light rains, and a

high temperature, are absolutely necessary to an epidemic of yellow or malarial fevers. Do not be *over-confident for what you have done, but be careful in* DOING THE NECESSARY."

January 31*st*, 1889.

Art. IV.—Deformities and Enchondromata of the Nasal Septum.*

By W. PEYRE PORCHER, M. D., Charleston, S. C.

Secretary South Carolina State Medical Association, etc.

As considerable variance of opinion seems to be entertained by general practitioners concerning the influence which pathological abnormalities in the nostrils have upon the larynx and chest, and through them upon the system generally, I desire to report the following cases. They illustrate forcibly the extent to which such growths and deflections of the septum nasi, are instrumental in the production of coryza, hay fever, asthma, coughs, simulated phthisis and other maladies, and the benefit to be derived by the treatment, correction, or removal of these deformities.

Dr. F. H. Bosworth, of New York, is of the opinion "that deflections of the septum are almost invariably of traumatic origin, but a frequent form of excrescence is found upon the septum, when there is no corresponding depression upon the other side. These are due to the chronic or deforming arthritis, as the result of an injury." In a classical article on this subject, published in the *Medical Record* of January 29th, 1887, he says:

"Of 45 cases in whch I have removed septal deformities, the symptoms were interference with normal respiration, accumulation of mucus in the fauces, hawking and spitting; cure resulted in 32 cases, and relief in 13. I believe in every one of them that the primary source of the whole difficulty lay in the deflected septum, producing nasal stenosis and subsequent hypertrophic changes in the nasal mucous membrane, these constituting all the pathological changes which the nasal mucous membrane had undergone. * * * * * That this is the true view, I think is well

*Read before South Carolina State Medical Association, April, 1889.

shown by the fact of our utter failure for many years, to treat successfully catarrhal diseases of the larynx and trachea by local applications and by our final and striking success in curing such diseases, by removing diseased conditions in the nose to the exclusion of any local measures whatever directed to the nasal passages below. * * * * I have seen no case of asthma, (and my clinical records cover a very large number, in addition to these here reported), in which the source of the trouble could not be traced to disease of the nasal cavities."

Dr. H. Horlbrook Curtiss, of New York, in an article read before the Ninth International Medical Congress, says: "For several years, the writer had been waiting to see a case of post nasal catarrh unaccompanied by enlarged turbinates, or deviated septum; writers on this subject maintain that the catarrh causes the erectile tumefactions. If this is so, why then do we never see a catarrh in its initial stages? And again, so many of the commonly encountered diseases of the ear, nose, throat and lungs, have a symptomatic association with nasal stenosis that it would almost be necessary to include an index of throat diseases. Why the profession at large do not, and have not grasped this great truth, is surprising. It seems a disgrace to the scientific teaching, that patients suffering from a condition as apparent as nasal polypus, or almost complete stenosis from deflection of the septum, should be almost daily advised to go to Colorado or Florida, to avoid phthisis."

Dr. Carl Seiler, of Philadelphia, says: " Like Dr. Bosworth, I have been struck with the great importance of these excresences of the septum nasi in the production of various, and often remote symptoms, which we notice in cases of chronic nasal catarrh; and I have, more and more come to the conclusion that it is necessary to restore the normal smooth surface of the septum, in order to cure the chronic nasal catarrh."

He does not think with Dr. Bosworth, that they are of traumatic origin, but due to internal local irritation of the mucous membrane of the cartilaginous septum primarily, and the pericondrium secondarily, citing, as an illustration, the formation of a cartilaginous and sometimes bony bridge across the nostril, from two contiguous surfaces.

It will be noticed that the nostrils can be in a condition of the most serious pathological import without any other

than reflex symptoms to indicate such a condition. The normal nasal mucus may be diminished to such an extent that the patient may never feel the need of a handkerchief, or the secretion may become so viscid from long retention or deficient oxygenation, that the demand for the use of the handkerchief, or the necessity to hawk and clear the throat, will be almost incessant. The presence of growths and deformities of the septum cause so little apparent inconvenience that patients become absolutely incredulous of their existence, and this latter fact is especially noticeable in the cases I am about to report.

CASE I.—*Mental Weakness Resulting from the Presence of an Enchondroma of the Septum Nasi.*

The following case exhibits a remarkable sequence of cause and effect even to a condition bordering on mental aberration, from the presence of a cartilaginous spur, projecting from the septum nasi, and pressing against the contiguous turbinate. That the recovery was a direct result of the treatment instituted, is beyond the possibility of a doubt for the following reasons:

1st. The patient's illness had existed for over a year, and was, at the time of his visit to me, distinctly worse than at any previous time.

2d. He had just returned from a large watering-place, where he had been for six weeks, and during that time he had not only received no decided benefit, but his symptoms had increased to such an extent that his return home became imperative.

3d. His improvement after the removal of the growth was immediate and permanent, and he is at present enjoying robust health.

H. F. P., white, a planter, æt. about 32. For two years previous, he had been subject to frequent attacks of coryza, accompanied with vertigo, headache, great torpidity of bowels and general malaise. During this period he had two attacks of pleurisy, and, as a result, his nervous symptoms became especially prominent. He not only had constant and prolonged insomnia, but he also had hysterical pains, noises and jumping movements in his left side. The latter annoyed him to such an extent that he often

tore open his under clothes over that region in the effort to get at or remove the cause of the unpleasant sensations.

His attendants thought he was suffering from melancholia, and he was advised to visit one of the Springs, in the hope that he might derive benefit from the change; he therefore spent six weeks at a large watering-place, but returned home still extremely nervous, and without having received the slightest benefit. He was able to sleep but very little at night, and continually brooded over his condition, thinking that he was doomed to consumption on the one hand, or to insanity on the other—both being hereditary taints in his family; and on this latter account some of his near relatives thought he had softening of the brain.

It was in this condition that I first saw him; scarcely able to control his nervousness, and with but little hope of ever regaining his former mental or physical condition, as he had been unable to attend to business for over a year.

It was at once apparent that his mind must be set at rest, and this I did by assuring him that his nervous symptoms could be controlled, and ordering him a hepatic stimulant and laxative.

While making this general examination, I noticed that he had a frequent tendency to "sniffling," and this led me to make a rhinoscopic examination. A cartilaginous projection was disclosed, jutting off from the septum and in contact with the left inferior turbinated bone. It was papillomatous in character, and very indurated. It caused him to bend his nostrils forcibly over to that side te get breath, and to clear them of accumulated secretion. He was entirely unconscious of the presence of this growth. A small portion of the apex was cut away, sufficient not only to relieve the pressure, but to leave a vacant space between it and the contiguous turbinate. He received no additional treatment, except general advice as to hygiene, etc. His subsequent history was, that his insomnia and general depression rapidly disappeared.

A relative occupying an adjoining room, informed me that she first became aware of his improvement by an absence of the frequent sneezing and clearing his throat on first awakening in the morning, to which he was addicted; and he has since informed me that he has never been so free from coryza as he has been since the removal of the growth. Nor has there been any recurrence of the attacks of pleurisy. His health is now completely restored, and he no longer fears consumption or insanity.

Here we have a distinct consequence of cause and effect—recovery following the removal of the exciting cause.

Case II.—*Enchondroma, producing Conjunctivitis.*

The subject was a physician. He was taken with a violent neuralgia of one side of his face. The eye on that side became greatly inflamed, with much photophobia, lachrymation, etc.

My friend, Dr. Chas. W. Kollock, of this city was consulted, and the presence of some nasal complication being suspected, he referred him to me.

On examination anteriorly, I found a swollen, angry looking tumor occupying the inferior meatus, and growing off from the septum. The apex had become ulcerated from pressure against the anterior turbinated bone. It was evident that this pressure produced all the radiating inflammation, and I therefore at once removed as much of the tumor as possible with a small bistoury and a pair of nasal scissors. There was considerable hæmorrhage, some small vessel evidently having been severed, but this was easily controlled by pressure with a pledget of cotton and a little liquor ferri persulphate.

The operation gave him great relief. His neuralgia disappeared, as well as the conjunctivitis, photophobia, etc. Being quite an old man, he would not consent to any secondary operation for the total removal of the growth, and also because as long as he is free from cold, the remaining portion gives him no trouble.

Here the cause and effect are obvious, and of interest, as the left eye was alone effected, the side upon which the growth existed.

Case III.—*Enchondroma of the Septum Nasi.*

J. D. S., æt. 45, a railroad employee, complained simply of a frequent desire to clear the fauces and larynx of accumulated secretions, and had suffered from nothing more than repeated attacks of cold, as he thought, a natural result of his occupation.

Examination showed a swollen projection from the septum; apex ulcerated and white from pressure against the opposite turbinate, and the base red and tender, resembling very much in appearance a boil upon which pressure had been made.

Here again the patient was altogether unaware and incredulous of the existence of any growth, deformity or in-

flammation in his nostrils, in spite of the pressure and ulcerated surface.

His naso-pharyngeal symptoms improved to such an extent,after the removal of a portion of the growth, that whereas he had, previous to the operation, been subjected to weekly exacerbations of his rhinitis, he now tells me that he has not had a single attack in six months.

Cases of anterior nasal obstruction are frequent, and examples can easily be multiplied with their accompanying neuroses, as it so often happens that patients become habitual to nasal obstructions.

I desire next to report a case of posterior nasal disease without anterior obstruction, in which fatal laryngeal ulceration supervened:

Case IV.—*Phthisical Laryngitis*

A gentleman, æt, about 45, had first noticed a slight tendency of his voice to fail eight or ten years ago, in attempting to sing high notes, or whoop at his dogs while hunting.

Two years previous to his visit to me, he had had a severe attack of laryngitis, with complete aphonia, but he recovered almost entirely from this. He said he was not at all subject to cold, and, normally, his habit was not to require the use of a handkerchief—rarely, in fact, unfolding it from one week to another. He asserted, that as far as he knew, his nostrils were perfectly healthy and needed no treatment.

On examination, the anterior nostrils appeared quite patent, and nothing especially abnormal existed. Posteriorly marked hypertrophy of both turbinates was present, as well as general submucous infiltration of the septum,— in fact, every indication of chronic hypertrophic rhinitis of long standing. Laryngoscopy revealed an ulcer on the left vocal cord, which had rendered him aphonic for several months. He also had chronic hæmaturia.

A short time after treatment was begun, after great exposure, this patient was seized with violent asthmatic paroxysms and died.

Here we find a seriously diseased condition of the posterior nares, with no sign to indicate its presence, except the laryngeal disease below.

I would draw one or two conclusions from these cases:

1st. Very serious pathological lesions can exist in the

nares, anterior and posterior, without the patient being cognizant of their presence.

2d. The pharynx and larynx, and through them distant organs, or the whole system can be kept in a condition totally inimical to the proper maintenance of health by the presence of such pathological lesions in the nose.

Art. V.—Complications of Diseases.*

By HOWELL B. GWIN, M. D., of Decatur, Ala.

Addressing especially my younger brethren in the medical profession, my purpose is briefly to insist upon the *early, thorough, and habitual study of the complications of diseases.* Confronting and perplexing us so frequently they are to us, as to a traveller, "the hill difficulty;" as to the geometrician, "the pons asinorum."

A complication Dunglison defines: "In medicine it means the presence of several diseases, or of several adventitious circumstances foreign to the primary disease." They must be distinguished from sequellæ, which are "morbid phenomena, left as the result of a disease," though a sequel may lead to a complication, as perforation of the intestine in typhoid fever gives rise to peritonitis.

To distinguish a complication from an essential part of the disease requires exact diagnosis—*e. g.*, chronic catarrhal gastritis is less a complication than a part of gastric cancer. In some cases, it is a difficult matter to dissociate the complications from the sequellæ, as in measles, where the sequellæ may be looked upon as the complications which have continued after the subsidence of the exanthem; but it is customary to include under sequellæ certain affections that are the result of the derangement of the system by the morbillous process. Complications of measles consist, as a rule, in the exaggerated morbid action of organs or parts that are essentially implicated in the disease; therefore, we are apt to encounter such affections as laryngitis, bronchitis,

* Read before the Medical Association of the State of Alabama at Mobile, Ala., April 12, 1889.

pneumonia, etc. The most common accompaniment of a disease will soon be anticipated and treated, as laryngitis with measles, and peritonitis with typhoid fever, and inflammatory lung trouble with from 5 to 10 per cent. of influenza cases. But when not so common or arising in a remote region, it requires the most thorough diagnosis and the most skilful therapeutics.

When studying a case of disease, complications should always be within our perspective. For example, pancreatic disease is often accompanied by jaundice; and as pancreatic disease is often at the bottom of diabetes, it will account for the jaundice, while the presence of the jaundice may also suggest a pancreatic diabetes. Some complications may have a very obscure clinical history, as pneumonia with gastric cancer. A disease may appear at different stages in the progress of the primary disease, and may sometimes be overlooked, as lobar pneumonia in typhoid fever; the heart's action may be so weakened in typhoid fever that venous thrombosis may be the result. Certain complications may be very rare, as peritonitis found by Dr. Howard once as a complication of acute rheumatism.

D'Israelli has said: "It is the unexpected which happens." The effects upon some constitutions of chloroform may surprise and often alarm us. The outburst of a latent or hereditary affection or taint, or the lesion of some weak organ or tissue, may seriously complicate the disease and disturb its treatment. The diagnostician must thread every fact, and, deducing a true theory, must proceed with a slow or rapid, but always with a firm step. If the morbid organism illustrates the maxim, "in union there is strength," the physician, too, must do the same with his remedies. All of his powers of observation and reasoning, all of his scientific resources, must be brought into vigorous exercise in search of any appreciable lesion which may increase danger to the patient, or difficulty to the practitioner.

We are apt, if not sure, to meet with complications where diseases have a wide range of symptoms—where, febrile in nature, they have a remarkable course of temperature, when specific poisons affect the patient, as before or after child-

birth, when a common cause, like malaria, attacks several organs simultaneously or successively. Of this we may usually be assured, that we will rarely find the case in the body to correspond in every respect with the case in the books. As nothing has so contributed to the advancement of knowledge as comparative science—Comparative Anatomy, Comparative Biology, Comparative Grammar, etc., so nothing will so surely make a true and successful physician as comparative study of diseases and their co-ordinated treatment, and hence his accurate differential diagnosis will often prove the key to his action.

It must be assumed, I think, that even a slight complication makes the prognosis less favorable. To nip this in the bud, to hold it in check, to control it in its *pari passu* course or in its closer alliance with the primary disease, this reveals one's having "risen to the height of the great argument and of the greater responsibility." Complications that make the prognosis unfavorable, as visceral complications with gout, will awaken the deepest concern, and put our skill to the utmost test.

As complications may sometimes mask themselves as sequellæ, so sequellæ may sometimes mask themselves as complications; for instance, intense bronchitis occurring in severe forms of influenza are not, strictly speaking, complications, but an essential process of the disease, while capillary bronchitis is a complication. The symptoms of the complication often attach themselves to the original disease, thus obscuring them. Causal conditions deserve profound consideration, as when attacks of recurrent, remittent or intermittent fever arise from malarial influence to which intestinal catarrh is due. Lead-poisoning, malaria, and wrong or insufficient diet may cause both dysentery and paralysis Constipation may be either a symptom or a primary affection. Constipation is almost a universal accompaniment of dyspepsia, sustaining to it not infrequently a causative relation. The circulatory and nervous symptoms, so intimately related to some affections, are often impressed independently by a common cause, so as to produce perplexing or danger-

ous complications. Even a natural condition, like pregnancy, often proves a serious complication.

The question of treatment—ah, here our objective work begins. To define the limits between health and disease, between cause and effect, is very difficult—aye, often eludes our capacity. When a complication occurs, the treatment appropriate to the idiopathic disease is first suggested, and of course should be well in mind. Standing ready with as full knowledge as possible of the patient's constitution, we are to study all that pertains to the wise administration of remedies, their compatibilities or incompatibilities, their simplicity, and the availability of a common remedy to reach a common cause, and such like problems. In some cases, no direct remedy beyond alleviates need be used, as with rheumatic symptoms in scarlet fever, requiring a simple liniment composed of carbolic acid, tincture of belladonna, and camphor. If internal medicine be indicated, then, in the face of the above-suggested problems, while striving to harmonize all the morbid phenomena, our duty is to strive to harmonize our complex treatment. A consideration of certain correlated morbid conditions justifies the inference that they have a common origin, as in cases of gout pointing to a perverted nutrition, and this in turn suggests the treatment. Here I cannot be specific.

My object in this article is gained if some of us, younger physicians, shall value more truly the importance of this theme—and make it a prime study. It is so generic that its appreciation will lead us to the more thorough study of single diseases, and so practical that we shall, through life, find constant use for the fruits of our knowledge as they relate both to separate and allied diseases.

"Am now convinced, after testing its virtue in some exceedingly severe and obstinate cases, that Tongaline possesses *decided and marked curative properties* in Rheumatic Neuralgia, and also in many instances of Muscular Rheumatism."—Walter Coles, M. D., St. Louis.

Proceedings of Societies, Boards, etc

VIRGINIA PHARMACEUTICAL ASSOCIATION.

(From our Special Correspondent.)

The Virginia Pharmaceutical Association opened its Eighth Annual Meeting in the banquet-room of Hygeia Hotel, at Old Point Comfort, at 12 o'clock M. June 6th. The President, Dr. E. A. Craighill, of Lynchburg, Va., called the meeting to order, and it was opened with prayer by the Rev. O. E. Herrick, the U. S. Army Chaplain, at Old Point.

After the close of the prayer, a very eloquent and cordial *Address of Welcome* was delivered by Mr. D. K. Murray, editor of the "Norfolk Landmark," which was replied to by Mr. T. Roberts Baker, of Richmond.

The meeting was called for 10 o'clock, A. M. but President Ingalls of the C. & O. Railroad gave a grand banquet, the night before, to a number of prominent Cincinnati and Chicago merchants, and the room was not ready for occupancy by the Association until 12 o'clock.

It appearing after the opening of the meeting, that a full quorum was not present, because some of the members would not be in place until the arrival of the evening train, and because many were prevented from attending by the general demoralization of the railroad service throughout the State, caused by the floods of last week, the President was requested not to read his Annual Address until the night session, at which time the reports of the Secretary and Treasurer were also read. But as Dr. L. B. Anderson of Norfolk was in attendance at some professional inconvenience to himself as a delegate on fraternal relations, from the Medical Society of Virginia, and stated that he would be compelled to return to Norfolk that afternoon, and could not attend another session of this Convention, it was decided that he should be heard.

Dr. Anderson having been formally introduced, proceeded to address the Convention. He commenced by complimenting the Pharmacists upon the wonderful and rapid progress that the profession has made, and demonstrated that the day had long since passed when the physician and the pharmacist could afford to ignore one another. They were separate and distinct professional men, working together in their own spheres to accomplish a common end, the prevention and cure of disease, and so allied as to be

indispensable to each other. He cited cases in his experience to show that frequently the knowledge and skill of the pharmacist had saved the physician, who had made some error in writing a prescription, much mortification. He related several very interesting and amusing anecdotes in connection with medical botany and pathology, and finally took his seat amidst a round of applause.

The Association passed a resolution tendering him a vote of thanks, and at a subsequent session appointed a delegation on fraternal relations, to attend the next annual meeting of the Medical Society of Virginia.

At 8:30 P. M. the Association was again called to order, when after the reading of the *President's Address*, and reports of officers, the Convention having been considerably reinforced by new arrivals, a large amount of business was disposed of, and committees were appointed to prepare business for the next day.

The *President's Address*, as was to be expected, coming from a man like Dr. Craighill, was a very fine paper. It contained many valuable suggestions, and useful and interesting statistics, and evidenced much painstaking in its preparation. I much regret that the limits of this communication will not justify my enlarging upon some of its salient points of merit.

At the *third session*, officers were elected for the ensuing year. And I think the Association is to be congratulated upon their selection of Mr. R. H. Stratton, of Gordonsville, as the President. A committee of three members as delegates to the Convention to be held in Washington in 1890 to revise the U. S. Pharmacopœia was also elected. And in order that the proper care should be taken in their selection, the President was given time to appoint them.

Mr. Cheers, of Reidsville, North Carolina, appeared, and presented his credentials as a delegate to represent the North Carolina Pharmaceutical Association.

The hour for reading scientific papers having arrived, many valuable and interesting papers were presented, and read, some of which provoked much discussion, as a really good paper always will do. Mr. Jackson, of Norfolk, read a very fine paper ou *Medical Botany*, but it will not do to begin to enumerate, as I fear this letter is already too long.

The sentiment in regard to a preference for the most suitable place to hold the next annual meeting was so diverse, that it was determined to appoint a committee to consider, and decide upon the question. The time and place for the

next annual meeting will be announced by the President at some future time.

I must close by saying that all who had the good fortune to attend this meeting, came away well pleased with its results, and delighted with the cordial hospitality of Mr. Pike, the manager of the Hygeia Hotel. B.

KENTUCKY STATE MEDICAL SOCIETY.

The 34th Annual Meeting was held in Richmond, Ky., May 9th, 10th and 11th. The President, Dr. L. S. McMurtry, of Danville, Ky., occupied the chair; Dr. Steele Bailey, of Stanford, Secretary. Dr. J. M. Forster, Chairman of the Committee of Arrangements, delivered the Address of Welcome.

Dr. J. W. Gilbert, of Laurenceburg, Ky., limited his *Report on Progress in Practical Medicine* to the consideration of

Bright's Disease, etc.

Since Dr. Richard Bright's report of 23 cases of albuminuria associated with general dropsy, etc., in 1827, it has been customary to call all those affections of the kidney comprehended in his report by his name. Pathologists interpret the different morbid anatomical appearances found in different cases as different stages, with the notion that the last stage is a result of the contraction of the products of inflammation; some have denied this. Dr. George Johnson, in 1859, claimed that the genuine contracted kidney never passed through a previous inflammation, but that the apparent increase of interstitial connective tissue was only relative in consequence of the destruction of the glomeruli and epithelium of the convoluted tubes.

It is exceptional, to find in kidney cirrhosis a history of previous inflammation. Contracted kidney does not follow scarlatinal albuminuria sufficiently often to indicate a causal relation. Scarcely ever is general dropsy associated with abundant albuminuria, with tube casts, etc., but, the contracted kidney usually comes on so insidiously that the patient is unaware of serious trouble until an apoplectic and epileptic seizure or uremic coma occurs. He may have noticed some increased nocturnal micturition, of a paler color, containing *less solids.* In a typical case of *parenchymatous nephritis,* whether acute or chronic, the *amount of urine per diem is always diminished, and the or-*

ganic constituents are always increased. Albumen is present as a rule, the amount being in direct ratio to the activity of the inflammation. The same is true of urea and other normal constituents of the urine. In *contracted kidney* the reverse is true; the watery portion is increased and solids diminished in quantity.

The cause of this renal degeneration is veiled in obscurity; on account of its similarity to cirrhosis of the liver, it has been assumed to be prodnced by the use of alcohol, without sufficient reason, however. The causation is attributed by many recent writers, to faulty metabolism of nitrogenous substances in the liver. This faulty metabolism does not belong to any special class of persons or vocations. Fothergill says excess of uric acid does not necessarily depend upon very high living; at the same time it can be and very often is so originated. At other times it takes its origin in imperfect oxidation of nitrogenized matter, which results from the splitting up of peptones in the liver into the glycogen and waste azotized matter. Very commonly it is the consequence of impaired functional activity in the kidneys. Consequently lithiasis may show itself in a working woman as well as in a wealthy squire.

What particular substance is the specific agent in this morbid action is not stated. Some have explained it to be a general affection of the arterioles and capillaries due to a constant irritant effect kept up by some morbific agent circulating in the blood. Others, hold that the systemic agent acts through the nervous system, and, either by its local effect on the ganglia in the kidney or on or through the central nervous system, keeps up a constant spasm of the arterioles. This spasm increases the cardiac resistance and causes cardiac hypertrophy, which in turn increases the spasm. But the experiments of Claude Bernard on the parotid gland, show that stimultation of the sympathetic diminishes the blood supply to the glands as well as the watery secretion and size of it, but increases the organic constituents to a maximal limit; hence the contrary would happen to that which actually does occnr in renal contraction, if this latter view is correct.

Just the opposite obtains in the disease under consideration, the watery elements are increased, the organic diminished. This accords with the Bernardian experiment when he applied the induction current to the secretory nerve of the parotid gland. The blood supply was increased to the gland, as shown by incision of its substance; it would

bleed more freely, the secretion was lighter and contained less organic matter. By experiments on other glands it has been established that glandular activity is controlled, other things being equal, by the nervous supply to the gland; and that stimulation of the nerve supplying the gland from the spinal system increases the watery and saline elements of the secretion, and stimulation of the nerve supplying it from the sympathetic system increases the solids characteristic of that peculiar secretion. In other words, one is a secretory, the other a trophic nerve. In his experiments upon artificial diabetes in animals, Bernard found that when irritation was applied to the floor of the fourth ventricle exactly in the middle of the space comprised between the origin of the pneumogastrics and the auditory nerves, the urine was increased in quantity and became strongly saccharine. When applied a little above this point, the urine was simply increased in quantity, but contained no sugar.

It seems more rational to explain the facts actually observed in kidney contraction by assuming that the morbific agent acted through the central nervous system and on the secretory instead of the trophic nerve. In the first place, the watery elements could not be increased at the expense of the solids unless the secretory nerve or vaso-dilator was effected, thereby giving the gland a greater blood supply, greater pressure or greater rapidity of the current. But this greater blood pressure could not be explained upon the idea of cardiac hypertrophy; it would not account for the urinary secretions being greater at night. Bartel says that this greater frequency of desire to micturate at night is founded upon the more abundant secretion that takes place at this time. Nor does cardiac hypertrophy always precede the abundant nocturnal secretion. The *materies morbi*, during sleep and as a consequence of the inactivity of the skin, the bronchial and intestinal mucous membranes, and such organs as act vicariously to the kidneys, accumulate in the blood, thus stimulating more, the longer the body remains quiet, the central nervous organs and keeping up a greater blood supply to the glands. If this poison acted on the trophic ganglia, and thus kept up a spasm of the arterioles, the result would be increase in solids in the urinary secretion until some maximal limit was reached and the gland became exhausted; also the specific gravity of the urine would be much greater, and would increase as bodily quiet was prolonged. The

exact converse of this actually occurs. If the excessive secretion is due to cardiac hypertrophy, without taking into consideration the secretory nerve action, then it would have to be explained by the laws of osmosis, diffusion, and transudation. Tigerstedt and Santesson fouud that while filtration takes place readily through dead animal membranes, when living membranes were used, as the lung of a frog, and filtration was attempted under the same pressure with serum or normal salt solution, no filtration at all was obtained. If the living lung tissue was killed by any means, filtration quickly commenced. Similar results were reached with other structures.

It is ridiculous to assume that the kidney is diseased in consequence of the hypertrophied left ventricle. Cardiac hypertrophy does not always precede the morbid action in the kidney, neither has the kidney affection been shown to precede the cardiac hypertrophy. There is a constant pathological condition which obtains in kidney cirrhosis, viz., endocarditis, endarteritis, and thickening of the arterioles. Probably the lesions in the kidneys, and those commonly associated with them, are all due to some common cause, probably arterial tension.

The substances referred to above as resulting from azotized food, may most probably be leucin, tyrosin, or uric acid, which substances are known to be products of faulty metabolism. Normal products of tissue-waste may also be active in the production of this kidney disease, when such substances are in an abnormal quantity, but that is as yet *sub judice*. It is more likely, however, the result of some abnormal constituent of the urine; and instead of this substance stimulating the trophic nerves and causing spasm of the arterial system, it is more likely that the initial condition is vaso-dilatation; for vascular tension would cause less blood supply to the kidney and greater specific gravity of the resulting secretion, for it would contain more solids and less water, and vaso-dilatation would cause a greater blood supply and an increased amount of water, which is just the condition that obtains in this affection. This vaso-dilatation would naturally result in a tissue hyperplasia of the whole arterial system through the vasa-vasorum. It is well-known that a structure is susceptible to inflammation in direct ratio to its functional activity, and that all structures have a maximum limit at which nutrition must stop and at which time—approaching functional exhaustion—they are the most liable to disease.

Under these universal laws we find a ready explanation of the conditions in the several stages of the contracted kidney. We have seen that endocarditis, endarteritis, etc., are found in renal degeneration; but not as the initiatory condition. The inflammation results from the constant contact of the irritating *materies morbi* with such susceptible structures as the endocardium and vessels. Through the influence of this vaso-dilatation, the coronary artery naturally gives a greater blood supply to the heart, and its muscle develops to its maximal limit, as well as the circular muscles of the arteries. The first morbid condition noticeable is a thickening of Bowman's capsule and a compression, from its contraction, of the glomeruli. One very remarkable microscopical appearance is the great number of wasted glomeruli; they are often grouped together closely, and appear much smaller than the normal Malpighian tufts which still remain; they lie in the midst of the striped and fibrilated connective tissue, perfectly independent of the tubuli uriniferi. Summing up some of the well-known pathological conditions which exist in this affection, we find a "vicious circle" which culminates in the death of the affected part.

It is now a clinical fact that the pulse is less compressible in this disease than normal. It is manifest, therefore, that the recoil of the arterial system is lessened; if to a great degree, so that the second pulsewave is not perceived in a sphygmographic tracing, it increases the work of the heart enormously. This condition is of itself quite enough to account for the left ventricle hypertrophy, and, more than that, the two conditions are developed simultaneously, as far as is known. The usually accepted cause of the cardiac hypertrophy, the kidney contraction, is not enough. The renal artery is not large. If it were entirely obliterated, either gradually or suddenly, as by ligature, it could not of itself produce hypertrophy of the left ventricle. Other arterial areas, quite as large as the kidney, are obliterated without, so far as is known, instituting any hypertrophic enlargement of the heart. The question may be asked, Why no hypertrophy of the right ventricle, if the resistance in the kidney is not the cause? The answer is: The right side of the heart is the venous side. The veins are not affected in this disease. and the endocarditis is not found on the right side. The pulmonary artery is thickened, but there is no endarteritis in it. Why? The answer has not been made; but his belief is that the active

agent in the production of this disease is derived from faulty metabolism of nitrogenous products in the liver.

The conclusions are therefore, (1) That contractive degeneration of the kidney is not inflammatory, nor the result of inflammation. (2) That the causative agent is a result of faulty metabolism of azotized food. (3) That the substance resulting from faulty metabolism is not necessarily dependent on any particular habits or vocation. (4) That it is most likely one or all of the substances known as leucin, tyrosin, or uric acid, etc., resulting from faulty metabolism. (5) That its activity is first manifested on the central nervous system, producing vaso-dilatation, and ultimately and locally on the heart, arteries, capillaries, and kidney. (6) That it is only noxious in arterial blood. (7) That its innocuousness in venous blood is probably due to its combination with carbonic acid. (8) That the kidney itself is affected first only by its increased functional activity, and the gland is finally degenerated by exhaustion, aided by the local irritative action of the *materies morbi.*

Dr. J. A. Ouchterlony, of Louisville, noticed especially two points in connection with *interstitial nephritis*—the *etiology* of the disease, and the *complications of heart lesions.* He had seen a great many cases. The result of his observations was that the habit of intemperance is the most frequent cause of "chronic interstitial nephritis." By the time of the patient's death, however, he may also be a victim of chronic interstitial hepatitis, both conditions being often produced by the same cause. Yet cases of chronic hepatitis have occurred in people who have never tasted alcohol, and we often see cases of confirmed drunkenness in which neither hepatitis nor kidney lesion has occurred. In chronic interstitial nephritis we usually find hypertrophy of the heart, and the cardiac lesions may be detected early. We may later on have chronic valvulitis, brought about by the manner in which the blood is forced through the aorta and the consequent friction. It may occur in children between the ages of two and ten years, and possibly even earlier in life than this.

The Report on Surgery

Was made by Dr. W. L. Rodman, of Louisville. The doctor, in looking over this department during the past year, found himself surrounded by an embarrassment of riches. *Senn's hydrogen gas test for perforations of intestine* he considered the most brilliant, as it is perhaps the most useful. Gas finds its way out of the wound if there be perforation

and burns with a bluish flame. Senn's twelve propositions were given. His discovery has greatly increased the interest in penetrating wounds of the abdomen, and in the results, we find much to cheer us. *Supra-pubic lithotomy* has gained much in favor during the past year. *Epicystotomy* has every advantage for tumors and foreign bodies. The new *cystoscope of Neitz and Leiter* has rendered the diagnosis of tumors of the bladder comparatively easy. In *cystitis of the female,* More Madden, of Dublin, has recommended the dilatation of the urethra, then curette the proliferating mucous membrane and apply carbolic acid over its entire surface. In *iliac abscess* it seems that early operation promises the most. *Dermoid cyst of the neck* has been recently operated upon by Keetley, of London, by cutting away a portion of the cyst wall, suturing it to the neck-skin, and stuffing it with gauze after cleansing it thoroughly. This has resulted well in his hands and is certainly quicker and safer. Whitehead's method of *operating for piles* (complete excision) has here and there gained an earnest advocate, but will hardly supersede the ligature. Piles with prolapsus can perhaps be operated upon by Whitehead's method with the best advantage. *Alexander's operation* has fallen into disuse. It can only do good in cases of retroversion with fixation. Dr. Dudley, of New York, has recently described a new *operation for rupture of the perineum,* differing from Emmet's in the mode of taking the stitches. But Tate's operation renders an improvement impossible. In the *treatment of carbuncles* Edmund Owen, of London, uses erasion He cuts away all slough and undermined skin, scrapes thoroughly with a Volkman spoon, and dresses it antiseptically. In this way a painful and septic mass is converted into a painless and aseptic one. *Excision of carbuncles* is advocated by Gerster and others. The doctor considered it probably the best means of treating them. Colles, of Dublin, has shown that *changing from the horizontal to the sitting posture in injuries to patients with fracture of the bones, of the lower extremities* is very injurious A *new treatment of aneurisms* has been suggested by McEwen. It consists of the introduction of needles into the sac till they reach the endothelial lining of the opposite wall. The oscillation of the needles scratches the endothelium and causes proliferation of the leucocytes, which are said to form a firm fibrous mass. *Pneumonotomy* is gaining laurels for pulmonary abscess, 50 per cent of the cases being successful. *Pneumonectomy* has met with such success in the lower animals that it is recommended in man.

One lobe or a lung may be excised. It is thought that the minimum respiratory area compatible with life and health amounts to two pulmonary lobes. The past year has witnessed many sharp discussions as to the comparative merits of *ether and chloroform.* The latter has not suffered by the comparison. It is not desirable that one should supplant the other, as we need them both. One is good in some cases and inferior in others.

Laparotomy for Penetrating Gunshot Wounds of the Abdomen.

Dr. David Barrow, of Lexington, reported four cases, and discussed generally laparotomy for such injuries.

Case 1. White male, aged 31, received a pistol wound near the umbilicus; the ball entered the abdominal cavity and perforated the small bowel seven times, and wounded the mesentery extensively. Two branches of the mesenteric artery were divided, and hemorrhage was profuse, the patient being in marked collapse before the operation. A median incision was made, and the intestines were rapidly delivered and the bleeding vessels caught. The perforations were then closed with the Czerny-Lembert suture and the raw surfaces of the mesentery were sewed in apposition. The intestines were then cleansed with a weak solution of bichloride of mercury and returned to the cavity; the peritoneal cavity was irrigated and sponged. The incision was sutured with silk, and antiseptic dressings applied. The operation lasted two hours. Collapse was the prominent condition, due mainly to the hemorrhage; death occurred three hours after he was put to bed.

Case 2. White male, aged 25, was shot with a 38-caliber pistol; he was drunk at the time. The wound was below and to the left of the anterior-superior spine of the ilium, and below the liver; the bullet could be felt under the skin; it had traversed the abdominal cavity. Shock was slight and there had been no vomiting. A median incision was made from the ensiform cartilage down; the small intestines were examined and nine perforations found. Six of the perforations were satured with carbolized silk; the other three being close and destroying a large part of the bowel lumen were resected, about four inches of the gut being cut out; the ends were united with the Czerny-Lembert suture. Before the intestines could be returned to the cavity the gas had to be evacuated by puncture The incision was hard to close, and strong relaxing sutures were used. Operation lasted two hours; the patient died 15 hours after.

Case 3. Mulatto, aged 29, was shot at 10 A. M.; was seen

at 2 P. M.; he was drunk and there was no shock. To the left of the umbilicus was a bullet wound. An incision was made in the median line and the viscera examined, but no injury found. The patient recovered rapidly, and on the twentieth day left for the country.

Case 4. Negro, aged 25, shot at 10 P. M. April 22d; seen 2 A. M. the 23rd; there was then but little shock. Below and to the right of the ensiform cartilage was a pistol wound. A median incision was made thirteen hours after the wound was received; a quantity of blood and bile escaped. The ball passed through the right lobe of the liver and cut one of the bile ducts; the gall bladder was intact, but empty. The liver wound bled freely; it was plugged with gauze, and the hemorrhage controlled. Operation lasted one hour, and the patient rallied well. For two days he did well; jaundice was then marked and he became restless and delirious. He continued in this condition for five days when he died. There was never the slightest evidence of peritonitis, and death was due to cholemia.

In his remarks, Dr. Barrow said that Dr. Coley gives to Baudens, of France, the credit of having done the first laparotomy for penetrating wounds of the abdomen in 1836. Dr. Kinlock, of Charleston, S. C., did the operation in 1881, and Kocher, of Berne, Switzerland, had a successful case in 1883. In this country Dr. Bull met with the first success in 1884. Dr. Coley in his article collects 74 cases with 39.5 per cent. recoveries; under the "let alone" management of such cases less than 10 per cent. recovered. Shock is an unreliable symptom, and the absence of it should not deter the surgeon in opening the abdomen. The fact that a ball has entered the peritoneal cavity is sufficient ground for an operation. All of the cases have recovered where the exploration has been resorted to and no visceral injury found. Senn's hydrogen gas test for perforation may substitute the exploratory operation in great part. The first thing to ascertain in gunshot wounds of the abdomen is, whether the peritoneal cavity has been entered, and to do this it may be necessary to enlarge the wound and follow the track of the ball. The median incision will best serve the surgeon; sometimes, as in the case of wound of the ascending colon, it may be better to enlarge the wound and repair the injury through it. When the direction of the ball is known, only those viscera liable to injury should be examined and no others manipulated. To deliver the intestines and keep them out of the cavity for a long time, even

when protected by warm towels, will cause marked shock; and, if possible, only the loop manipulated should be cut, and it should be returned before another is delivered. In hemorrhage the intestines must be delivered and the vessels caught as quickly as possible. When the blood supply to part of the tube is cut off, resection should be done, using the Czerny-Lembert or Senn's modification of Jobert's invagination suture.

The prognosis of uncomplicated wounds of the solid viscera is favorable; more than half recover. To stop hemorrhage from the solid viscera a deep suture may be inserted; if that cannot be done, the cautery may be applied, or the wound may be stuffed with gauze, as has been successfully done in a liver wound. It may be necessary to remove the spleen or a kidney if the hemorrhage can not be controlled. Should the gall bladder be injured and the bile extravasated, the prognosis is most grave. Bladder wounds should be sutured.

There has been but one reported laparotomy for gunshot wound of the abdomen in Kentucky, and that was by Dr. Isaac Warren, of Somerset, His patient died of peritonitis.

Drs. Rodman and Barrow's papers were then discussed conjointly.

Dr. Arch. Dixon, of Henderson, said that gas is of considerable value, not only as a means of diagnosis, but used after the operation, to see that the gut has been entirely closed. In obstruction of the bowel he was able by means of the gas to find the obstruction, the gut being bound down by an adhesive band. The *treatment of cystitis* is most difficult in females, as the drainage is so difficult. He has used both free drainage and the catheter, giving the bladder the most necessary of all procedures, rest.

Dr. Ap Morgan Vance, of Louisville, can't see why we can not open *abscesses of the lungs* and remove pus when necessary. He is an ether man when it is not contra-indicated. Examine the kidneys and lungs before administering an anæsthetic. He referred to a boy shot in the right loin, the ilium being perforated in eight places; it was sutured, but he died four days after from division of the ureter. As regards the hydrogen test, we rarely ever have time to use it unless we take the gas with us. More harm is done by waiting than in making an exploratory examination. Where the abdomen is penetrated it should certainly be opened and cleaned. Cases often die where the wound is outside of the cavity, as the result of abscess formation.

He then referred to a boy 17 years old, shot by a penetrating ball. It entered just outside the crest of the ilium, injuring the gut in seven or eight places, perforating the bladder. The gut and bladder were both satured. Six hours after the injury he had an injection of morphine and atropia, when the operation was performed; patient died six hours later from exhaustion. He can't consent to doing median laparotomy in every case. He only does this operation when the wound is near the median line. The finger thoroughly cleansed makes the best probe.

Dr. A. W. Johnson, of Danville, believes an exploratory incision, promptly done, does no harm, but prolongation of the operation is productive of most evil. He saw a negro man, shot in the service, in the very room where Ephraim McDowell did his first operation; but the poor fellow was in such a wretched condition, and as he thought, was so soon to die, that an operation was not attempted. He, however, rallied and made a full and complete recovery. Pure healthy bile, left of itself in the peritoneum, he does not think does much harm. Catarrhal mucus is the causation of the trouble. The best time for the use of hydrogen gas is after the stitches have been put in the abdomen and before they are tied.

Dr. J. N. McCormick, of Bowling Green, after two resections of the bowel, thinks too great an attempt is made at "mechanical exactness" in suturing, which results in allowing exposure of the gut for too great a length of time. If there is any sort of apposition, pressure upon the abdominal walls will sufficiently close the wound to secure perfect union. The surgeon should not attempt to close it as the glover would stitch his glove; he should remember that he has vital parts to deal with.

Dr. C. Skinner, of Louisville, said that the incisions should always, if possible, be made in the median line; here the belly wall is thinner and easier to get through. Should you have an injury of the liver, however, the case is altered. In the median line operations, we can irrigate and return the bowels with much more ease.

Dr. Barrow said that his patients had been moved too much, and that this encouraged the extravasation of fecal matter from the bowel into the cavity. After entering the cavity we should secure the bleeding points before searching for the perforations in the bowel. Lembert's suture is the easiest to apply. Hot-water irrigation is the best. More trouble has resulted from probing than any other cause. When

there is any doubt of perforation do your laparotomy early; then try your hydrogen test, search the bowel, be sure you have an abundance of light, and find all possible openings.

Dr. L. S. McMurtry, of Danville, said the great danger after a gunshot wound of the intestines, is from hemorrhage and shock. This fact makes it important to operate early and with dispatch; and do not keep the patient on the table too long. Time is consumed in elaborate preparation, the patient and friends often delay operating, and too much time is consumed in mechanical exactitude in suturing. In a case of perforation of the intestine, treated by laparotomy and suture of the openings of the gut, reported by him last year, his success was due to the early acceptance of the operation by the patient and its prompt execution. That case also illustrated the fact that it is best to select the site of the incision in view of the seat of the lesion. The lesion was evidently in the right iliac fossa and the incision was made over the tumor. If made in the linea alba the difficulties of the operation and drainage afterward would have been less efficient. The shock is often increased by prolonged anæsthesia. The patient should not be anæsthetized until the surgeon is ready to operate. A few weeks since he saw a laparotomy and excision of the pylorus for cancer at Billroth's clinic in Vienna, where whatever chances of recovery the patient had were materially impaired by the prolongation of the operation. The patient was on the table near three hours, and less exactitude in suturing would have economized time with great advantage. It suturing the gut for gunshot wounds, as in other abdominal operations, silk is the best material for sutures. It is our duty to open the abdomen at once in all penetrating wounds to determine whether or not the intestines are injured, to see if blood is effused, and to cleanse the peritoneum. An exploratory incision is preferable to Senn's method in diagnosis of these cases, from the fact that whether the intestine is opened or not, the hemorrhage is arrested and the peritoneum cleansed. Before closing the abdomen the gas will do a great service doubtless in deciding if all openings have been found and closed.

Dr. Larrabee mentioned that in most cases death occurred during the first few whiffs of the *anæsthetic*. He could not see how there could have been saturation of the system. Ether is always attended by tetanic symptoms. Give it as freely as possible. Many deaths from chloroform are not due to faulty administration, but to chlorine in the chloro-

form. Operations of minor importance should never be undertaken until the patient is fully under the anesthetic. He has seen three deaths resulting from the excessive use of iodoform.

Dr. Rodman, said that in chloroform administration the danger is proportionately great as regards the toxic influence of the drug; death is generally due to spasm of the glottis. A great many deaths have been reported from the excessive use of iodoform. Silk should be used in all abdominal work. In 32 cases reported by Sir William McCormack, where the ligature is specified, he mentioned silk. Dr. Dixon's point, that we should use the gas after, rather than before the operation, is faulty teaching. We should be prepared and have the gas on hand for constant use. It may be well to use it after the operation; but it is of great value primarily.

Dr. Barrow, in closing, stated that absorption of bile was the cause of the death of one of his patients, and not an intercurrent peritonitis. He does not see why a clean aseptic probe can do more harm than a finger.

Report on Public Hygiene.

Dr. J. N. McCormack, of Bowling Green, said that at a conference of representatives of the six bodies authorized under the new law to indorse diplomas, viz., the four medical colleges of the State, the State Medical Society, and the Homeopathic State Medical Society, held in Louisville during September, 1888, the matter was placed in his hands as the legal agent. A circular was published throughout the State, to the medical profession, explaining the provisions of the law, and defining their duty under it. At the same time a personal letter was sent to each of the 118 county clerks defining their powers and duties; all this being done under the advice of excellent legal counsel. In order to facilitate registration, and the better to secure the moral support of the profession, he charged no fee for indorsement in any case. The law has been generally complied with, and with less friction and complaint from physicians, than has been usual in other States. In some counties improper registrations have been made, but this has usually been due to the fact that no medical man in such county took interest in the matter and insisted that the clerk should adhere to a strict construction of the law. This does not apply to the county of Jefferson, where the real test of the law must be made, as has been the case in the enforcement of similar laws in large cities in other States. Here shrewd, enterpris-

ing but unscrupulous charlatans have built up large practices, have often accumulated considerable wealth, and of course will not yield their prospects for further ill-gotten gains without a contest. This contest the medical profession is preparing to force, and the final result can hardly be a matter of doubt.

The number illegally engaged in practice was found to be large. Scores have been forced out of the State, many have been required to attend the medical colleges, and many of the most disreputable charlatans from Indiana, Ohio, Tennessee, Iowa, Michigan and other States have been kept out of the State. Two or three amendments were made to the law in the course of its passage, which to some extent mar its efficiency, notably the provision empowering medical societies to indorse diplomas; but it is hoped there will be little trouble in having the next Legislature cure these defects. Whether this is done or not, the law is a long step in advance, especially if its strict enforcement secures the support of the profession in each county. After January 1st he will receive the reports from each county, after which he will publish an Official State Medical Directory, giving the name, age, place of birth, address, and place and date of graduation of each physician in the State.

Dr. McCormick offered the following resolution:

Resolved, That a committee of three be appointed in each county in this State by the President of this Society to secure the enforcement of the new medical practice act in their respective counties, and that a committee of five be similarly appointed for the city of Louisville.

Dr. Reynolds seconded the resolution, provided a surplus fund be contributed to that purpose.

Dr. Wathen, of Louisville, said it does not look well for doctors from Louisville to ask country friends to contribute money to enforce laws violated in Louisville. We are raising funds for the prosecution of the quacks, and able counsel will be employed. The colleges are contributing to this end, and by individual contributions of five dollars each we can raise the money, and there will be no trouble about their conviction.

Dr. McCormick said Dr. Reynolds' amendment was that the fund should be used if necessary in any county.

Dr. Dunlap remarked that it is the duty of the commonwealth's attorney to prosecute these charlatans.

Dr. Dixon said registration has made no change in Henderson. Legal authorities state that this law, being an

amendment, any man who has been practicing for ten years without a diploma has the privilege of enjoying professional rights. He knows of some who have not been practicing six years, but have registered and are now in practice.

Dr. McCormick said as regards Dr. Dunlap's suggestion, all the protection the public has ever had has come through the profession, and unless we see to the enforcement of the law it will never be done.

A vote of thanks to Dr. McCormick for the able manner in which he had discharged his duty was unanimously carried.

Report on Progress in Obstetrics.

Dr. J. G. Cecil, of Louisville, presented a good *resumé* of recent advances in his department.

Aseptic obstetrics.—To the physician in private practice who delivers hundreds of women, rarely seeing evidence of septic infection, this does not appeal with such terrific force as it does to men in charge of lying-in hospitals, who saw 10, 20 or even 30 per cent. of their cases die from blood poisoning. The same hospitals that twenty-five years ago were obliged to record this frightful mortality, now point to records of mortality in many instances less than one per cent. Whence this truly great advance? It is answered in one word, *cleanliness.* The use of bichloride of mercury in obstetric practice has been greatly diminished. Only the weakest solutions are used. Those who practice surgery ought to observe double precaution when doing obstetric work. When civil authorities recognize the truth embodied in this great discovery, surgeons will be prohibited from practicing obstetrics.

In *delivery of the after-coming head,* Winkel mentions twenty-one methods of extracting the after-coming head. He considered the procedure best which combined pressure externally with maintenance of the head in that position best suited for delivery, which is, the trunk and arms, when born, are raised, two fingers in the child's mouth at the base of the tongue by which flexion is secured. He makes pressure with the other hand through the uterus upon the head. Infant mortality varies from 9 (Dubois) to 30 per cent (Churchill). Authors advocate the application of forceps to the after-coming head, hastening delivery, even at the probable risk of cervical and perineal lacerations. The almost uniform success obtained now in the operations for the repair of these accidents impels us to certainly hesitate less in

using forcible delivery when the life of the child is in such imminent peril.

Often we see the birth of the child arrested and its life sacrificed after the head has reached the floor of the pelvis. Fruitless efforts are made to turn out the head, while rotation at the outlet has not occurred and is overlooked. A little aid from the obstetric hand will cause the necessary rotation. Anything that causes delay of the head in its descent must be overcome. Time is the great factor, and the forceps can be applied in two or three minutes; the manual method requires from five to six minutes to extract the child's head.

Management of Third Stage of Labor.—An ingenious and plausible theory recently advanced by D. Berry Hart, (*Edinburgh Med. Review*, *October*, 1888), is that the placenta and membranes separate when there is a disproportion at the plane of separation between their area and their site of attachment. This disproportion between the placenta and its site brings about tension on the trabeculæ of the trabecular layer, and results in rupture of tissue. This occurs during relaxation following a pain in the third stage. The placental site is subject to increase during relaxation; the placenta, now bloodless or nearly so, does not respond; hence the disproportion.

Either misconception or misapplication of the Credé method has resulted in unfavorable results. The strongest objection urged against this plan is, that if expression of the afterbirth is attempted too soon there is danger of tearing the membranes and retention of parts of them. The only serious *post-partum* hemorrhage that Dr. Cecil ever experienced was most probably induced in this way. The Credé, or active expression of the placenta, is only in the direction of assistance to nature; and the expectant plan is purely a physiological process. Ahlfeld remarks that the physician must be ever conscious that in performing Credé's method he is disturbing a physiological process. The mistake most often made is that of undue and unnecessary haste in delivering the after-birth. The conclusions arrived at after carefully weighing the arguments adduced by both sides, is a compromise. With Ahlfeld, wait, not necessarily an hour and a half, but until it can be reasonably ascertained that there is complete detachment of the placenta and membranes. Then, if the uterus be slow, or unable to deliver, assist in the expression by the Credé plan. It is a misapplication of the Credé method to attempt assistance of the detachment of

the secundines; it is equally needless that we wait, as advised by Ahlfeld, for hours, if necessary, for the extrusion of the placenta through the vagina. There can be little harm in the introduction of a clean hand into the vagina for the purpose of removing a loose placenta.

Cesarean Section versus Craniotomy.—The trend of opinion among obstetric surgeons favors modified Cesarean section to craniotomy in all cases where the child is living. Yet the mortality from the improved methods of doing craniotomy has been reduced to a very small per cent., or to nothing in some hospitals. Dr. Busey, of Washington, has taken the extreme view that craniotomy ought never to be done on the living child. The best that can be claimed for American Cesarean sections, is a mortality of 45 per cent. to mothers and about 10 per cent to children. The results obtained by Germans and Austrians are superior. The most recent data as collected by Caruso (*Arch. für Gynecol.*) show that the mother has three chances out of four and the child nine out of ten. Mr. Tait says amputation of the pregnant uterus will revolutionize the obstetric art, and in two years we shall hear no more of craniotomy or eviscerations, for this new method will save more lives than those proceedings do, and it is far easier of performance. It is the easiest operation in abdominal surgery, and every country practitioner ought to be able and always be prepared to do it.

The consensus of opinion concerning the treatment of *extra-uterine pregnancy* is rapidly narrowing itself down to primary laparotomy to the exclusion of all other modes. Quite a number of Americans adhere to the use of electricity. Others agree that electricity may be used with safety and certain beneficial results up to the third month of gestation. There can be no doubt that the fetus is easily destroyed by electricity, but those who have practiced this mode are not so unanimously agreed as to what becomes of the products of conception, or as to the efficacious nature of the current upon the tumor remaining. Mr. Tait says, the element of danger is not the fetus, if killed by electricity, but the placenta; this may go on developing enormously after the fetus has died from natural causes. This has been proven by the observation of Berry Hart and confirmed by Knowslby Thornton. The tendency after electrolytic treatment is toward suppurative septicemia and its various contingencies (Currier); this, with the uncertainty as to futnre of the tumor that is left and the immediate danger of the treatment, more than counterbalances the dangers incident to primary

laparotomy. From all reports we agree with Mr. Tait that abdominal section is the procedure that promises the most certain and safest results in ectopic gestation before rupture occurs. After rupture there can be no difference of opinion.

In the discussion Dr. A. D. Price said that a most important duty in the management of pregnancy is the chemical and the microscopical study of the urine, frequently and often repeated. Prophylaxis in puerperal albuminuria accomplishes much. The avoidance of excitement and resort to uniform temperature, diaphoresis, diuresis, hydragogue cathartics properly used, dry-cupping, and especially milk-diet and the administration of iron will often carry the patient safely through this dangerous period.

When should the paturient woman have an *anæsthetic?* When her suffering demands it. She should not be terrorized, depressed and unnerved by pain when it is so easily and safely prevented. Chloral is valuable in the first stage, and renders less chloroform necessary during the second. He has used chloroform almost invariably during a period of twenty-five years and has not seen a case in which it was contra-indicated, or in which it had any bad effects, save occasionally to lessen the pains to such a degree as to require the forceps to complete labor in reasonable time. A fatty heart, if known, is the only condition that would deter its use.

When called to the woman, it is of the first importance to *diagnosticate the position* of the child. If the ordinary method does not give positive information, introduce the hand, administering chloroform if necessary. The occipito-posterior position is easily, unless head is severely impacted, corrected by introducing the hand or applying the forceps in a reversed position and rotating the occiput forward.

How long should labor continue? Applying forceps and complete delivery before the vagina becomes hot and dry, and before exhaustion supervenes. The forceps, properly and wisely used, save many a mother and preserve the life of many a child.

The great question of the day is *aseptic* midwifery, the principles of which should be constantly urged upon the medical man, and by him persistently taught to the laity. When it is remembered that most of the ills of the puerperal woman are septic in origin and preventable, the medical man is not at liberty to neglect any method by which such dangers are avoided.

Aseptic midwifery is secured by perfect cleanliness of phy-

sician, nurse and patient. The patient, after the rectum is emptied by an injection, should be bathed from waist down with water and soap, wiped dry, and sponged with a bichloride solution, 1 to 1,000. The vagina should next be syringed with a like of 1 to 3,000. The clothing of the patient and bed should be clean, discarding everything the least soiled. The nurse as well as the physician should clean nails, scrub hands with water and soap, and then wash them in a bichloride solution, 1 to 1,000, before touching the patient. This should be repeated whenever the hands become contaminated. After labor the patient should be washed with water and soap, and sponged with a bichloride solution, 1 to 1,000, injecting a 1 to 5,000 solution into the vagina or within the uterine cavity if the forceps have been used or it has been necessary to introduce the hand into the womb. Leave nothing soiled about the patient or bed, and apply a napkin wrung out of a bichloride solution 1 to 3,000. Keep up this method till the bruised or lacerated tissues are healed, and the reward will be a speedy restoration. Prevention is worth more than all the efforts to cure.

During the *Evening Session* Dr. L. S. McMurtry, of Danville, Ky., delivered

The President's Address.

Most of it was historical as to the Kentucky Society. Among things, however, of general applicability that he said was the following:

"Our organization has not been without its critics and reformers. *The occasional attendant*, who seldom if ever contributes a paper or participates in the discussions, expresses his disapproval of those most active in the Society's proceedings, claiming that they monopolize the time of the Society, forgetting that the attention of the Society can be readily had by himself whenever he chooses—unmindful, apparently, that the most active members are those who make the Society what it is, and extend its usefulness. The reformer appears upon the floor with resolutions to amend the rules and mode of organization of the Society, only to show oftentimes that he has not carefully read our constitution and by-laws. From time to time a momentary enthusiasm appears in the form of a proposition to organize a State Society upon some ideal basis, forgetting that such institutions are built up through years of steadfast labor, and cannot be created in full vigor in a night, overlooking the important fact that any suggestions looking to improved efficiency are sure of respectful attention upon this floor. The most cer-

tain and the speediest way to improve the efficiency of the Society is to attend the annual meetings and take part in the discussions."

Dr. John A. Ouchterlony, of Louisville, delivered an address on *The Relationship of Medicine to other Sciences.*

Adjourned until morning of May 9th.

SECOND DAY—*Morning*—The first paper was on

The Importance of Rectal Examinations to Life Insurance Companies.

Dr. Joseph M. Matthews, of Louisville, considered it of great interest to life insurance companies and to those insured that the examination be as thorough as possible. Most companies understand this, and have a long list of questions and examinations through which the applicant must go before he is admitted. No company to his knowledge requires a rectal examination. Many rectal diseases are incurable and often fatal. The only thing insurance companies do is in some instances to ask the question, Have you had piles or fistulæ? Piles and fistulæ are generally not very serious to life, and some other rectal diseases are. The doctor reported a number of cases which had come under his observation where insurance companies had lost money after a short period of insurance by neglecting the precaution to have rectal examination made. The responsibility of the medical examiner for life insurance is a very grave one and is too often overlooked. There are diseases affecting this portion of the body which are wholly unrecognizable save by a careful examination or the exploration of the rectum. These diseases are self-limited, incurable and always fatal. The interim between their incipiency and full development is so vaguely marked and the insidiousness that nothing less than a full exploration will reveal their nature. If in this interim the patient were to apply for a life insurance policy he would probably be received into the company.

Dr. F. C. Wilson, of Louisville, thought it a delicate matter to ask this examination. It was with great reluctance that examination of the urine was introduced, but now no first-class company fails to ask it and it has saved them much money. He favored a middle ground. Question the patient and if anything was found indicating trouble of this nature then make the examination.

Prolapse of the Ovaries

Was the subject of a paper by Dr. E. S. McKee, of Cin-

cinnati. The doctor, though acknowledging that this trouble was often rather a symptom than a disease, yet thought it had many characteristics peculiar to itself and merited a separate consideration. He considered it much more frequent than was generally conceded. The location or the dislocation is as follows: Into the lateral pouch of Douglass, the true pouch of Douglass, and the anterior or vesico-uterine pouch of the infundibulum of the inverted uterus. The last is a position of great rarity. Increase of weight induces traction from below, or pressure from above, or causes feebleness or lengthening of supports, as conditions present during the puerperium, congestion, displacements, especially the posterior ones, violent straining at stool are conducive to this trouble. The left ovary is more usually prolapsed, not only because it is more subject to disease, but by reason of its greater enlargement during pregnancy. There are several conditions which tend to induce this condition in this ovary, chief of which is the valveless state of the left spermatic vein, which makes the vessel easily affected by an obstruction in the general circulation. The ovary generally becomes displaced as follows: It sinks downward and backward and at the same time describes an arc toward the median line. The Fallopian tube and ovarian ligament form cords. This brings the ovary behind the uterus. The ovary in its descent reaches that portion of the pelvic fossa just above the level of the sacro-uterine ligament known as the retro-ovarian shelf where it may remain. Spasms of sickening neuralgic pains of an unnerving character are felt in the pelvis and surrounding parts. Marked pain on walking and standing with torturing pain on defecation are experienced, with sometimes hysteria and melancholia. Diagnosis is as a general thing easy. If difficult, the patient should be examined while on her left side, as the perineum can then be pushed up at least half an inch and the finger reaches that additional distance up the posterior vaginal wall. Rectal examination will permit an examination per vaginam. An anesthetic may be of service in such cases. We must not mistake the elevation of the pelvic contents en masse for mobility of the ovary. Prognosis depends on the duration of the disease, the condition of the ovaries, and the presence or absence of complications. Treatment. Sexual intercourse if permitted at all should be carefully regulated. The intestines should be kept empty with some preparation of mercury. Pessaries, he thought, lead to more harm than good. Bozeman's method of pack-

ing or columning the vagina, with the patient in the knee chest position, offers superior advantages. Campbell's position on the knees and chest, if faithfully and frequently carried out, is also of great benefit. The essayist had seen prolapsed ovaries follow the ascending uterus as it escaped from the pelvis at the fourth month of pregnancy, and after delivery, remain in their proper position. Schultze's method was discussed but considered as yet sub judice. Ophorraphy in the opinion of Imlach, of Liverpool, was an operation of merit, but his opinion had not been accorded with by other writers. Tait's operation had not been followed with the permanent results expected of it. Hysterorhaphy affords more or less relief to patients, and extirpation as a dernier resort sometimes becomes necessary.

Dr. J. B. Evans, of Riley Station, reported a case of **Extra-Uterine Pregnancy, with Exhibition of Fœtal Bones, etc.**

August 6, 1885, a colored woman, 23 years of age, good health, married, mother of one child eighteen months of age. Examination revealed a tumor in the left side—round, hard, and bulging, and appeared to be in size six by eight inches. Menstruation stopped about four months before, and the patient thought she was again pregnant. Her sensations, however, were not as they were in the former pregnancy; she was very restless and had a slight show of blood at times; beyoud the stoppage of the menses there was no symptom of pregnancy. The womb was normal. She suffered abdominal pain, and complained of constipation. Prescribed for the constipation August 8th. Purgatives had acted well, removing fecal accumulation. Tumor was as before. Could not detect motion or fetal heart sounds. Thought the tumor might be ovarian, and recommended an operation for removal. This was declined. Patient passed from under his care until April, 1886. The tumor was larger and the patient reduced in flesh. She was also low spirited, had loss of appetite, and suffered pains in the bowels. I still recommended an operation. In October, 1886, peritonitis set up, from which she suffered greatly. This became chronic. The patient was very much reduced; she was given opium to relieve pain, salts to regulate the bowels, and supporting treatment for a year. In July, 1887, she began to have watery discharges from the bowels, composed of fecal matter, broken-down tissue, etc. She was very low and suffering a great deal. The abdomen was much swollen. The patient was delirious at times with pain. In October, 1887, she began to pass some fetal bones; it

then would be days and sometimes weeks before any more would pass. The long bones were the first to pass. In June, 1888, he removed the head bones from the rectum; they, being large and flat, would not pass the sphincter without assistance. About the time of the first passage of bones from the bowels the peritonitis began to subside, and the patient gradually grew better. She is now a stout, healthy woman. She has not since become pregnant.

To sum up: Patient first seen August 6, 1885, tumor on left side, menses stopped, health good. April, 1886, found tumor somewhat larger than at first; health of patient about same. October, 1886, peritonitis had supervened; patient *in extremis*. July, 1887, watery discharge from bowels; great suffering. October, 1887, passed fetal bones; began to improve. June, 1888, last of bones passed; tumor gone; woman well. Had nearly three years of suffering.

Dr. Archibald Dixon, of Henderson, read a paper with the report of a *case of tubal pregnancy*, delivered at term.

Discussion of Papers of Drs. Evans and Dixon.

Dr. Cecil said that Dr. Dixon's case of tubal pregnancy going to full time, without rupture, is of such infrequent occurrence that, in the absence of an unusually careful dissection, and miroscopic examination of the walls of the sac, he was disposed to question the correctness of the diagnosis; in fact he doubted if it were possible for tubal pregnancy to to go to full term without rupture. Notwithstanding that such cases are recorded, it is generally agreed that rupture will occur by the end of the fourth month.

Referring to the case of Dr. Mann, in which the fetus remained unchanged about three years, he mentioned the case reported by Playfair, in which the fetus was retained unchanged in the abdominal cavity for fifty-two years—the specimen now in the museum of the College of Surgeons. He thought the case of Dr. Evans of exceeding great interest. Ulceration into the rectum and discharge of the fetal remains through the fistulous opening occasionally happened. The vast majority of cases of ectopic gestation were originally tubal. No doubt many cases reported as of abdominal variety had been in the beginning tubular, but rupture had taken place and the patient had survived. He did not agree with Mr. Tait, and others, that abdominal pregnancy was an impossibility. Too many observers had recorded cases which could be explained upon no other

hypothesis The case of Kellar, referred to by Spiegelburg, in which the body and a large part of the neck of the uterus had been amputated, was a noteworthy instance. Mr. Tait had failed to explain this case of abdominal pregnancy, as well as several others reported by men of equally good repute. Dr. Cecil agreed that it would be hard to conceive of the impregnated ovum becoming attached to a healthy peritoneum, but we may find explanation for such cases in some of the causes of ectopic pregnancy. Would not inflammation or chronic congestion of the pelvic peritoneum so alter the surface as to allow implantation and development of the ovum? He, at least, considered this as good an hypothesis as that the tube should rupture and the rent heal so thoroughly as not to be discoverable. He did not believe that the fecundated ovum would be digested by the normal peritoneal fluid. As to the treatment, laparotomy was the best procedure.

Dr. Frank C. Wilson, of Louisville, read a paper upon the

Recent Advances in the Diagnosis and Treatment of Pulmonary Tuberculosis.

He referred to the importance of an early diagnosis, and, if possible, the discovery of that condition which precedes the actual deposit of tubercle. He then described the pneumatic sirene of Dr. Edgar Holden, of Newark, N. J., which consists of a glass cylinder eight or ten inches long, provided with a perforated disk attached to a light spring, which is carried by the air respired to a distance along a graduated scale proportionate to the force of the current. This could be used also in inspiration by reversing it. Tuberculous cases showed a marked diminution of the force of both inspiration and expiration. The spirometer of Hutchinson would be useful in the same way, measuring the vital capacity of the lungs, which in tuberculous cases is always greatly decreased. He also exhibited the respiratory anemometer of Dr. Holden, an instrument consisting of a chamber in which is placed a light valve, so arranged that it is moved forward and backward by the current of air expired and inspired through the breathing-tube. The valve is connected by cog-wheel and lever with a marking pen, which traces a corresponding curve upon a slip of paper moved along at a uniform rate by clock-work. The curve thus records not only the relative force of inspiration and expiration, but its rhythm and frequency. He referred to the necessity of frequent microscopic examinations of the

sputa in search of the bacillus of Koch, which might thus be detected after being first implanted in the mucus of the respiratory passages.

Under the head of treatment, he referred to the use of the apparatus of Waldenburg and its various modifications for the purpose of expanding and developing the lungs by the use of compressed air. Various attempts had been made to combine the use of compressed air in inspiration and expiring into rarefied air, but the apparatus proposed had generally been expensive and cumbersome. This object he had attained in an apparatus which he had had constructed a year ago, and had since been using with much benefit in a number of cases. It consists of two cylinders, one for compressed air and the other for rarefied air, each connected by a tube with a three-way stop-cock, also connected with a breathing-tube, so arranged that by turning a lever the patient may inspire from the compressed air cylinder and then expire either into the atmosphere or into the rarefied cylinder. The same effect he had accomplished by a much less expensive instrument he had devised for home use, termed a differential respiratory bellows. The apparatus consisted simply of a bellows divided by a partition into two chambers, the valves so arranged that one side would compress the air and the other rarefy it, each being connected by a branched tube with the common breathing-pipe. With this instrument the chest could be greatly developed, the expansion enlarged, and the vital capacity markedly increased. The air thus forced into the lungs could be easily medicated by a glass globe holding a sponge saturated with a volatile agent, such as eucalyptol, guiacol, carbolic acid, etc., and the vapor thus breathed under compression would reach to a much greater depth in the air-passages than when respired under the ordinary atmospheric pressure.

The importance of properly caring for the sputa from a tuberculous patient and thoroughly disinfecting or destroying every vestige was emphasized, and the danger o ftransmission of the disease from patient to nurse was vividly portrayed. He also referred to the possibility of communication of the disease from the lower animal to man.

Thursday, May 9th—Afternoon Session.

Called to order at 2:30. Dr. Ap Morgan Vance made a report on

The Art of Asepsis.

Exhibiting a "surgical case" of his own construction.

Antiseptic Gauze. In the preparation of this gauze buy the ordinary excelsior butter-cloth, which is very hydroscopic. Place it in bichloride of mercury solution ranging from 1–1000 to 1–500, and allow to remain at least twenty-four hours. After it has been perfectly saturated, run it through the ordinary clothes-wringer into a receptacle, where it is ready for future use.

In preparing *iodoform gauze* use this as a basis,, dusting iodoform over a piece of the size needed in the operation and the gauze is ready for use. Keep this gauze in an ordinary candy jar, with rubber around the top, hermetically sealed.

Irrigators. In making irrigators use the ordinary demijohn, breaking a small piece from the bottle, and then, by means of a rat-tail file immersed in turpentine, file or saw an opening sufficiently large to pass the ordinary sized rubber tube. Pass the tube through the neck of the bottle, and, catch from the outside through the small opening made, and draw it through, thus constructing one of the cheapest and best irrigators in the market.

Sponges, being full of sand and other mineral matters when purchased, should be first soaked in clear water, dried, and beaten thoroughly; this repeated several times, the water brings many of the small particles to the surface. All the sand having been beaten out that is possible to be removed, they should be immersed in the following bath and allowed to remain for twenty-four hours.

1. Acid muriatic..... ℥ ss;
   Aq. dest..... gal. ss.—Mix.

They should then be wrung dry and immersed in each of the following baths (wrung dry after each),

2. Potass. permang .....℥ ss;
   Aq. dest .....gal. ss.—Mix.
3. Acid oxalic.....℥ ss,
   Aq. dest.....gal. ss.—Mix.
4. Sod. hyposulphite..... } āā ℥ ss;
   Acid muriatic..... }
   Aq. dest.....gal. ss.—Mix.

Having been run through several waters, and dried, they should then be immersed in a carbolized solution (1 to 20) until ready to be used.

The dark spots seen in many sponges, especially the "Potter's sponge," are natural and can not be removed. It may be necessary to run the sponges through the baths

more than once; this, however, should not be done too often, as the action of the strong acids is deleterious to the integrity of sponges.

The Surgical Case consists of a hard wood bottom containing four blocks in which are inserted the instruments, each block having over it a hard rubber immersion pan. Above this hard wood tray is a leather compartment fastened to the tray by side clasps, the leather part forming the top proper of the case. In the top, which opens as an English grip-sack to each side, may be found restoratives, anesthetics, antiseptics, as aromatic spirits ammonia, tincture digitalis, whisky, chloroform, ether, cocaine solution, bichloride mercury tablets, hypodermic tablets of morphia and atropia, carbolic acid, sweet oil, cologne, amyl nitrite, and collodion, these arranged in rubber-protected bottles in rows along the sides of the tray. Also, there should be in the case a battery, hypodermic syringe and aspirator, Esmarch bandage, bone mallet, razor, strap, and brush, rubber drainage-tubes, rubber irrigator, nail brush, irrigator tip, rubber tourniquet, bichloride gauze and bandages, adhesive plaster, retractors, iodoform, boracic acid, rubber and silk ligatures, medicine glass; and in the instrument case may be found any instrument which would be necessary in any surgical operation of any magnitude.

A paper on *Syphilitic Ulceration of the Upper Air-passages* was read by M. F. Coomes, M. D., Louisville.

Laryngeal Syphilis

Was the subject of a paper by A.B. Thrasher, M. D., Cincinnati.

Why this disease should be in the larynx, when it is constitutional and affects nearly every organ, seems hardly worthy of discussion; yet, in not every case of general syphilis is the larynx affected. The percentage of laryngeal cases varies from Lewin's 4.8 to Sommerbrodt's 34 per cent. These variations are because of the uncertain time of the appearance of the laryngeal complications. It occurs as a secondary, or more frequently as a tertiary manifestation. The secondary generally accompanies similar lesions of pharynx, mouth or skin, while the tertiary or the congenital disease is not infrequently found alone.

The *symptoms* vary in different stages and in different persons. The secondary or milder forms usually occur within twelve months after the initial sore, and are generally limited to hyperæmia, condylomata, superficial ulceration. Mackenzie thinks mucous tubercles are rare in secondary

syphilis, while Lennox Browne thinks these warty growths are not infrequent at the points of most irritation, especially where there is much moist secretion. Dr. Thrasher saw a well-marked papilloma springing from a condylomatous patch of the ary-epiglottic fold.

The rapid acute hyperæmia of the secondary syphilis can hardly be mistaken for anything else. A week's constitutional treatment will always settle the diagnosis.

In the latter stages occur the formations of gummata, deep ulcerations, and affections of the cartilages. Not infrequently the first symptom is dysphagia, as the epiglottis is the most frequent seat of the ulceration, because of direct irritation of the ulcerated surface by the passage of food, and not because of real difficulty in swallowing, since the entire absence of the epiglottis does not materially influence deglutition. When the cartilage of the larynx becomes affected, deglutition is much more painful. The voice is affected, where there is interference with the mechanism of the vocal bands, as by swelling of the arytenoids, infiltration of the muscles moving them, or by pressure of the innervating nerve, as by enlarged lymphatic glands.

There is cough when secretion drops into the larynx, especially when there is involvement of the trachea in the syphilitic process. Great destruction may be accompanied by but little, while a small ulcer may cause considerable cough. When there is perichondritis with much edema, the obstruction may threaten suffocation. Cicatricial contraction from healing extensive ulceration may cause a slowly progressive contraction of the breathing orifice until tracheotomy must be resorted to. Pain is not a marked feature; indeed, its absence is a prominent point in differential diagnosis. During phonation or deglutition pain may be present, varying much in severity, but rapidly ceases when the larynx is brought to rest or the bolus of food ceases to irritate. Cervical glands enlarged. This is worthy of notice when differentiating from cancer and tubercle. But by the laryngoscope, we find that the buccal surface of the epiglottis is first attacked, then the ary-epiglottic folds, vocal bands, and the deep cartilages. Since the ulcer is generally the result of a brokendown gummy tumor, it is deep and presents a "punched out" appearance. One or two large deep ulcers are surrounded by a zone of intense hyperæmia rather than a number of small ones. Frequently but one side of the larynx is affected. When the cartilages are attacked there is usually œdema of the overlying tissues.

The swollen tissues may for a time disguise the underlying disease, and it is in cases of this character that difficulties in diagnosis occur. Great distortions of the larynx arise. Even when the speaking voice is not much affected, the laryngeal image may be entirely changed. After the ulcerations have healed the contractile connective tissue distorts the parts in the most grotesque fashion. Should these deposits of connective tissue be in the interior of the larynx, an increasing cicatricial stenosis may result.

Differential Diagnosis. The disease most likely to be confounded with syphilis are tubercle and cancer. In tubercle, especially cancer, there is more pain, and it is more constant. In cancer the pain is lancinating, radiates to the ear, and is felt at any time without reference to irritation of larynx. The voice is more changed in cancer and tuberculous disease, although when the vocal bands or arytenoid cartilages are involved this is not true. Cough is much more pronounced in phthisis than in either condition, yet, when associated with chronic bronchitis, the difference may not be marked. The sputum is not so abundant as in tuberculous laryngitis, or the ulcerative stage of carcinoma, and is rarely tinged with blood. Deglutition is more impeded in tuberculous or cancerous ulceration.

The syphilitic ulcer develops in a few days, the cancerous requires weeks, and the tuberculous months. Syphilis attacks preferably the upper surface of the epiglottis, tubercle the under surface, cancer the ventricular band. In syphilis, there is a solitary serpiginous ulcer with sharp edges surrounded by an areola of hyperæmia; in tubercle there are numerous shallow ulcers, or these run together, forming a large ulcer with ragged, nibbled edges: the cancerous appears on the summit of an angry tumor and is surrounded by highly inflamed tissue. In tubercle there is, as a rule, anæmia of faucial and laryngeal mucosa, while hyperæmia is the rule with the other two affections.

Œdema is marked in tuberculous laryngitis; it is either not present or transient in syphilis. Enlargement of cervical glands, anterior and posterior, is indicative of syphilis, and is either not present or not so marked in other diseases. Age may exclude cancer; laryngeal syphilis shows itself at any age, yet most cases occur between twenty and forty.

Lupus of larynx might be mistaken for syphilis, yet the disease is so rare as to not fall into the observation of most larnygologists. When the only manifestation of lupus is in the larynx, the administration of antisyphilitic remedies confirm the diagnosis.

The *constitutional treatment* of laryngeal syphilis does not differ from the routine antisyphilitic treatment: Iodide of potash in large doses, tonics, sedatives, good food and air. Locally apply a 25 per cent solution of argentum nitras to the ulcerated surface daily, or every second day. When there is tendency to moist granulations, cauterize them with solid nitrate of silver fused on a platinum probe, or dry calomel may be blown over them. When there is a tendency to contraction of the orifice by the adhesion, careful separation of the surfaces may keep them apart until the ulcers have healed. In sudden œdema, tracheotomy should at once be resorted to. In cicatricial contraction, giving rise to dyspnœa, a tracheal tube should be inserted. After tracheotomy, attempts may be made to dilate the stricture or to cut the adhesive bands. In the majority of cases of syphilitic laryngeal stenosis the tracheal tube must be worn throughout life.

The effect of congenital syphilis on the larynx is quite like the tertiary manifestations of the acquired form, and should receive like treatment.

Dr. S. G. Dabney said that during the past year he saw a young lady of irreproachable character, whose nasal septum was bulging so as to touch the ala on either side; it was clearly a case of abscess of the septum. It was opened, and the case progressed well, except for a slight sinking in of the nose. Such a lesion was not sufficient to warrant constitutional treatment. Had such a course been taken, the diagnosis would always have been uncertain. A month or two previously there had been a sore on the cheek near the angle of the mouth; some four or five months later a distinctly syphilitic eruption appeared, a rupia most marked about the wrist. This was seen by Dr. Ap Morgan Vance, and the patient has since been under general treatment. Such affections of the septum are great rarities. Another case, where diagnosis from the local lesion was impossible, was a young married lady of the highest social standing and character. On the anterior pillar of the fauces of either side was an ulcer somewhat crescentic in shape and of distinctly syphilitic appearance; the symmetry was perfect—Not the slightest suspicious history could be obtained. The ulcers healed readily under local applications, and after about six months, not the least evidence of further trouble was seen.

Dr. W. H. Wathen, of Louisville, read the *Report upon Gynecology.*

Pelvic Hematocele.

The generally accepted definition of pelvic hematocele, is a blood tumor in the pelvis, encapsulated, within or without the peritoneal cavity. All pelvic hematoceles are extra-peritoneal. It is not possible for hemorrhage in the peritoneal cavity to become rapidly encysted so as to form a fixed tumor; the blood is mixed with lymph, and coagulates so slowly that it is not confined in any one place in the cavity, but changes its position upon the movements of the body; the blood could not be confined by a layer of effused lymph immediately above it. If the hemorrhage into the cavity is at all considerable, death probably results before it can be confined by adhesions of the superimposed intestines. Intra-peritoneal hemorrhage is nearly always fatal. Blood never comes encysted in intra-peritioneal hemorrhage from defective ligation in laparotomy for the removal of tubes, ovaries, etc. He gave, as causes of encapsulated hematocele, sudden metrostaxis of normal menstruation, or of pseudo-menstruation following abdominal or pelvic operations, and rupture of a tubal pregnancy. Intra-peritoneal hemorrhage is nearly always caused by primary or secondary rupture of an ectopic gestation. The tumor may extend even as high up as the umbilicus in extra-peritoneal hematocele, as the peritoneum is a tough and elastic membrane, and so easily separated from its attachments that hemorrhage in the loose pelvic connective tissue may dissect up the tissues under the peritoneum between the broad ligaments, between the rectum and vagina, from around the rectum, from the sides of the pelvis, and from the anterior abdominal wall. In hemorrhage into the cavity of the peritoneum no well-defined tumor or fixation of the uterus can be felt in a bimanual examination, while in pelvic hematocele the symptoms are nearly pathognomonic. He advised against surgical interference unless the sac ruptures into the peritoneum or suppuration is manifest. If fluctuation can be detected from below, make an opening and give free drainage to the vaginal vault; but, if fluctuation is well-marked above the pelvis or ruptures occur into the peritoneum, abdominal section should be done.

Dr. W. A. Johston stated that the battery should never be used if rupture had occurred. The case should either be left to nature or laparotomy be done. The chief difficulty in diagnosing hematocele is in differentiating those confined within the walls of the peritoneum from those without the peritoneal covering.

Dr. Wathen said that there is no such thing as an intra-peritoneal hematocele. If the blood should drain into the peritoneum, the result of a tubal pregnancy, or a rupture should occur in any of the blood-vessels of the abdomen, it is a hemorrhage not encysted. It is necessary we should have effusion of lymph before this can be confined; consequently you can not have a fixation of an intra-peritoneal hematocele unless it be secondary. Strictly speaking, there is no such thing as intra-peritoneal hematocele. The only hope of saving the woman's life is a laparotomy; ligate the tubes and remove them. Primary abdominal pregnancy is an impossibility, while secondary is a very unusual thing.

Dr J. N. McCormack offered the following, which was adopted.

Be it resolved, That this Society co-operate with the State Pharmaceutical Society in having the laws amended so as to require every man engaged in the State in the compounding of drugs to be a graduate of pharmacy.

The following officers were elected for the ensuing year: *President* Dr. John A. Ouchterlony, Louisville; *Vice-Presidents*, Drs. William Jennings, Richmond and R. L. Wilson, Lexington; *Secretary*, Dr. Steele Bailey, Stanford; *Assistant Secretary*, Dr. John Young Brown, Lexington; *Treasurer*, Dr. J. B. Kinnard, Lancaster. Henderson was chosen as the next place of meeting and Dr. J. S. Letcher Chairman Committee of Arrangements.

Book Notices.

Wood's Surgical and Medical Monographs. Vol. II. No. 2. (1) *Preventive Treatment of Calculous Disease, and the Use of Solvent Reagents.* By Sir Henry Thomson, F. R. C. S., London. (2) *Sprains; Their Consequences and their Treatment.* By C. W. Mansell Moullin, M. A., M. D. Pp. 267. Vol. II. No. 3. *General Orthopædics, including Surgical Operations.* By August Schreiber, M. D. Pp. 250.

These two numbers for May and June respectively are excellent selections, both because of the general interest felt in such every-day subjects, and because of the merits of the treatises and the recognized authority of the authors. Each number of these Monographs sells for a dollar; but the entire twelve copies for the year can be got for $10, beginning with each January number. Besides a well-arranged table

of contents for the *Monographs*, each March, June, September and December number closes a volume of some 700 or more pages, and a thorough index to the respective volumes is issued, with neat title page, etc.

Synopsis of Human Anatomy. By JAMES K. YOUNG, M. D., Instructor in Orthopædic Surgery, and Assistant Demonstrator of Surgery, in University of Pennsylvania, etc. Philadelphia and London: F. A. Davis, Publisher. 1889. Cloth. 12mo. Pp. 393. Price, $1.40. (From Publisher.)

The Publisher is doing valuable service to students and practitioners in issuing the "Physician's and Student's Ready Reference Series," of which the book now under notice is a very valuable one. According to the advertisement on the title page, this is "a *complete compend* of anatomy, including the anatomy of the viscera and numerous tables." While it keeps Gray's Anatomy as the standard, we would give a better idea of this hand-book were we to say that it selects every valuable distinctive characteristic of the other leading anatomical works, such as Leidy, Quain, Allen, Holden, Heule, Schauffer, Klein, etc. Excellent tables have been arranged, which very tersely and clearly present important anatomical facts.

Lectures on the Errors of Refraction, and their Correction with Glasses. By FRANCIS VALK, M. D., Lecturer on Diseases of the Eye, New York Post-Graduate Medical School, etc. New York and London: G. P. Putnam's Sons. 1889. 8vo. Pp: 241. (From Publishers.)

The student of errors of refraction and like subjects of to-day, as compared with him of some twenty or more years ago, may thank his teachers for being plainer, more simple in description, less technical in language, and more practical in illustration. In short, this is a *practical* age. Dr. Valk, in the volume, writes as if he were intent upon *teaching*—beginning at the beginning and progressively passing instructively through each subject until he makes a master of his student. He is generally very precise, but in one or two instances his off-hand style of writing has caused omissions which should have been filled in such a book where nothing is intentionally omitted. For instance, throughout the lectures he constantly refers to a selection of atropine for stopping the action of the ciliary muscle, etc. But when he comes to state the percentage solution he uses, he says (page 209) that he uses a four-grain solution. We might presume he means that quantity of atropia sulphate to each fluid ounce

of water; but his statement leaves the student to suppose any other amount of water he pleases.

Elements of Histology. By E. KLEIN, M. D., F. R. S., Lecturer on General Anatomy and Physiology, Medical School of St. Bartholomew's Hospital, London. Illustrated with 194 Engravings. New and Enlarged Edition. Philadelphia: Lea Brothers & Co. 1889. Cloth. 12mo. Pp. 368. Price, $1.75. (From Publishers.)

A knowledge of structure often suggests function. Histology is essentially the study of anatomy and physiology through the eyes of microscopists and the development of facts as the result of their observations. Dr. Klein has so long been an established authority that it seems scarcely necessary to do more than remark that he has so revised the former edition (1884) as to make the present one fully representative of the facts known up to the date of its publication. The work is well illustrated by wood cuts which quite accurately represent the various tissues, sections of organs, etc., etc. Doctors who wish to keep themselves informed in histological matters could not do better than to carefully study the contents of this book.

Suggestive Therapeutics, By H. BERNHEIM, M. D., Professor in Faculty of Medicine at Nancy. Translated from the Second and Revised French Edition. By CHRISTIAN A. HERTER, M. D., of New York. New York and London: G. P. Putnam's Sons. 1889. Cloth. 8vo. Pp. 420. Price, $3.50.

This is a treatise on the nature and uses of hypnotism. There can be no doubt that such a condition as sleep, or something resembling it, can be induced by suggestion, and made so profound and prolonged as to be of great therapeutic value, reminding the observer that the patient was under an anæsthetic. Bernheim, we are satisfied, however, states the fact correctly in saying that "no one could be hypnotized against his will"—that "no one can be hypnotized unless he has the idea that he is going to be." "The *idea* makes the hypnosis; it is a psychical, and not a physical or fluid influence which brings about this condition." While apparently profoundly insensible, the patient is yet awake to the suggestions of the hypnotizer. It is *suggestion* that rules hypnotism. Therapeutic influence of so great power should be cautiously applied. It has proved of value especially in hysterical, neuropathic, and various painful affections, rheumatic troubles, neuralgias, menstrual disorders, as also in dynamic paresis and paralyses, etc., etc. This

book presents a remarkably clear, plain, practical view of the subject, and every practitioner of medicine should acquaint himself with its teachings. It is a readable book for any educated person—doctor or layman.

Electricity in the Diseases of Women, with Special Reference to the Application of Strong Currents. By J. BELTON MASSEY, M. D., Physician to the Nervous Department of Howard Hospital; late Electro-Therapeutist to the Philadelphia Orthopædic Hospital and Infirmary for Nervous Diseases, Etc. Philadelphia and London: F. A. Davis, 1889. Cloth. 12mo. Pp. 210. Price, $1.50. (From Publishers.)

"Medical Electricity" has so long become established as a valuable therapeutic agent that the effort is no longer to prove its value, but to define the line of its many uses. Dr. Massey, in the work now before us, devotes much space to show the special values of strong currents within the pelvis as a substitute for a number of gynecological operations, such as laparotomy for fibroid tumors and for hydrosalpinx, curetting, trachelorrhaphy, application of styptics, caustics, etc., to the endometrium. Dr. Massey renders great service to the profession in detailing so simply and describing so safely the uses and means of applying so dangerous a power when misused. The book is well illustrated by wood cuts, etc.

Hand-book of Materia Medica, Pharmacy and Therapeutics. By CUTHBERT BOWEN, M. D., B. A., Editor of "Notes on Practice." Philadelphia: F. A Davis. 1888. Cloth. 12mo. Pp. 366. Price, $1.40. (From Publishers.)

This book entertains and instructs whoever undertakes to examine its pages. Its special use is for self review of information relative to the materia medica, pharmacy and therapeutics of each article recognized in the U. S. Pharmacopœia. It adopts the question-and-answer system as being more concise and more direct in the manner of instruction. It is one of the "Physician's and Student's Ready Reference Series" which Mr. Davis is selecting with care, and publishing with good taste and in a manner to fully warrant the claim of being a "ready-reference" book. In the illustrations given of the best formulæ for using most of the drugs, Dr. Bowen presents a great many excellent prescriptions for given diseases. While the book does not undertake to substitute the standard works on the subjects of which it treats, it will be found a very useful addition to the table library of any practitioner or student preparing for examination or reviewing his studies.

Editorial.

Medical Society of Virginia.

The preliminary postal card notice of the Twentieth Annual Session of the Medical Society of Virginia, has been issued—intended especially to ask for titles of papers, etc. From every quarter, the most encouraging reports are coming in, so that we may safely predict that the meeting in the Opera House in Roanoke, Va., commencing Tuesday night, September 3rd, 1889, will be more profitable and pleasurable and will have a larger attendance of Fellows and visiting doctors than any session yet held. Among distinguished visitors who have responded to invitations may be mentioned Drs. Robert Abbe, W. O. Moore, W. D. DeGarmo, A. Jacobi, A. M. Phelps, of New York City, Dr. W. W. Dawson, of Cincinnati, ex-President of the American Medical Association has (unofficially as yet) indicated his intention of this year attending the Medical Society of his native State. In confirming the nominations by Fellows, the Committee on Invitations (Drs. Landon B. Edwards, J. F. Winn, of Richmond, Joseph A. Gale, of Roanoke, J. Herbert Claiborne, of Petersburg, and Bedford Brown, of Alexandria) are now issuing a large number of invitations to distinguished gentlemen throughout the country, to be present and participate in the proceedings. The President, Dr. E. W. Row, of Orange, Va., and the doctors of Roanoke and many others are at work to make a great success of the meeting. The *Circular* Announcement of the session will be distributed about August 1st., but every item to be mentioned in it should be sent to the Recording Secretary by July 20th.

New Members of Medical Examining Board of Virginia.

In March, 1889, Dr. Thos. J. Moore resigned, and *Dr. L. Ashton*, of Falmouth, Stafford Co., was elected as his successor as one of the two Examiners from the State at large. In May, Dr. H. Grey Latham resigned, and *Dr. T. M. Bowyer*, of Liberty, Bedford Co., Va., has been selected in his place from the Fifth Congressional District. Dr. Alex. Harris, of Eighth Congressional District, died in May, and *Dr. R. I. Hicks*, of Warrenton, Fauquier Co., has been elected to fill the vacancy.

The Board is composed of men of ability and character; but there are several members who do not attend to the duties assigned them. When such gentlemen find it im-

practicable to attend meetings, etc., for any continuous number of times, they should resign and give place to others that the Medical Society of Virginia might elect who will make the sacrifices essential to the success of the Board.

E. Burke Haywood, M. D., LL. D.

We are always glad to chronicle good things about our subscribers. The University of North Carolina, at the recent session of its Board of Visitors, conferred the degree of LL. D. upon Dr. E. Burke Haywood, of Raleigh. The compliment was justly awarded, and it becomes the more complimentary in that this University never before thus recognized the worth and learning of a physician of its own State.

Alleghany Springs—Of Interest to Doctors, etc. Attending Session of Medical Society of Virginia, 1889.

Alleghany Springs is 3½ miles from Shawsville, Va., on the Norfolk and Western Railroad. The stage road is one of the best in the State—having been made so this year. Shawsville is 18 miles by rail from Roanoke, where the Medical Society of Virginia will meet September 3rd. The Medical Society of Virginia held its session of 1885 at these Springs *as the guest* of the General Manager, Capt. C. A. Colhoun. As a health resort, or for pleasure, every one then said that it was a charming place and the entertainments excellent. They are better now, and the place is still under the most hospitable management of Capt. Colhoun, who is ever watchful as to the comfort and enjoyment of visitors.

He manifests his interest in the Society again by authorizing us to say that for the week beginning Saturday, August 31st, 1889, he will reduce his charge to doctors who propose to attend the session in Roanoke, and to their families, to $2 per diem, or $12 per week, and will also charge only one-half rate for stage fare to and from the depot at Shawsville.

We regard this notice as of great interest to doctors, etc., whose families may accompany them, or who may be on their summer trips and wish to get to a favorite summer resort near by Roanoke. Three trains a day, each way, run between Roanoke and Alleghany Springs.

New York Post-Graduate Medical School.

The summer term of this institution opened on June 17, 1889. The fees for this session are one-half those of the winter term, and yet the advantages in the Dispensary of the school and in many of the hospitals of the city are quite as good as during the winter.

Medico-Chirurgical College of Philadelphia.

The following changes have been made in the Faculty: Frank Woodbury, A. M., M. D., Honorary Professor of Clinical Medicine; Wm. B. Atkinsin, A. M., M. D., Honorary Professor of Sanitary Science and Pediatrics; Jno. V. Shoemaker, A. M., M. D., Professor of Materia Medica, Pharmacology, Therapeutics, and Clinical Medicine; James M. Anders, Ph. D., M. D., Professor of Hygiene and Clinical Diseases of Children.

Census of 1890—Physicians Register, etc.

Superintendent of Census, Robert P. Porter, has issued a circular through the census office at Washington, D. C., to the medical profession which announces that Dr. John S. Billings, Surgeon U. S. Army, has consented to take charge of the Report on the Mortality and Vital Statistics of the United States as returned by the Eleventh Census.

"As the United States has no system of registration of vital statistics, such as is relied upon by other civilized nations for the purpose of ascertaining the actual movement of population, our census affords the only opportunity of obtaining near an approximate estimate of the birth and death rates of much the larger part of the country."

In view of this, the Census Office, during May, issued "Physician's Registers" for the purpose of obtaining more accurate returns of deaths than it is possible for the enumerators to make. It is earnestly hoped that physicians in every part of the country will co-operate with the Census Office in this important work. The record should be kept from June 1, 1889, to May 31, 1890. Physicians not receiving Registers can obtain them by sending their names and addresses to the Census Office, and, with the Register, an official envelope, which requires no stamp, will be provided for their return to Washington. If all medical and surgical practitioners throughout the country would lend their aid, the mortality and vital statistics of the Eleventh Census will be more comprehensive and complete than they have ever been. The Superintendent of Census promises that all information obtained through this source shall be held strictly confidential."

New York Polyclinic.

Dr. H. C. Coe has been elected to the Professorship made vacant by the death of Professor James B. Hunter.

Dr. Ephraim Cutter, of New York, N. Y.,

Has been honored by the Society of Science, Letters, and Art, of London, by a "Gold Medal," awarded for the excellence of his scientific papers read before the Society during the past year, to wit: (1) "The Relations of Medicine and Music;" (2) "Cleaned White Wheat;" and (3) "Hygienic Drinks."

This compliment is the more to be appreciated when it is said the Society suspended its rules to make him also an Honorary Fellow.

Important to Microscopists—$250 Prize to Discoverer of Each New Disease Germ.

The Vermont Microscopical Association has just announced that a prize of $250 will be paid to the first discoverer of a new disease germ. The wonderful discovery by Prof. Koch of the cholera germ, as the cause of cholera, stimulated great research throughout the world, and it is believed this liberal prize will greatly assist in the detection of micro-organisms that are the direct cause of disease and death. All who are interested in the subject and the conditions of this prize should write to C. Smith Bynton, M. D., Secretary of the Association, Burlington, Vt.

Bromine Arsenic Springs Waters.

In our advertising department will be found advertisements of two remarkable Springs—*Ashley's* and *Thompson's*. The first named is the latest claimant, but the Thompson's Springs furnishes the water which has so popularized the subject of *natural* bromine arsenic waters in this country. We wish to direct special attention to this subject, and have our subscribers report upon their effects, especially as the General Manager of Thompson's Springs asks the medical profession to report upon cases of any of the following ailments which a fair trial of the Springs Water he represents fails to relieve or even cure: Chronic rheumatism, nausea of pregnancy, chronic eczematous eruptions, gouty and nervous dyspepsias, etc. Read both advertisements and try the waters and report.

Medical Society of the State of West Virginia.

The Twenty-second Annual Meeting, to be held at White Sulphur Springs, W. Va., July 17th, 18th, and 19th, promises to be a session of more than ordinary interest. Not-

withstanding the feeble health of the Secretary, Dr. J. L. Fullerton, of Charleston, his generous work has done much to insure a profitable and a pleasant session. It seems that the President, Dr. L. D. Wilson, of Wheeling, has directed the affairs of the Society with ability, and developed a great deal of interest in this meeting. Dr. Thomas R. Evans, of Charleston, as Chairman of the Committee of Arrangements, deserves credit for the excellence of his work.

Besides a long list of competent writers and authors from the West Virginia profession announced for papers, etc., there will be among distinguished visitors Drs. J. Edwin Michael and S. V. Hoopman, of Baltimore, and Dr. Hunter McGuire, of Richmond, Va.

Obituary Record.

Dr. Wm. H. Shepherd.

Within the last six years not less than ten members of he medical profession of Norfolk, Va., and immediate suburbs have died. Of that number only two had reached the age of three-score years and ten, while a large majority of them were in the prime of life, and the acme of their professional labors. And now, we are called on to enroll on the death-list another, whose physical conformation promised a life as long as his intellectual ability and professional attainments gave assurance of its usefulness. It was only this morning that death laid its cold and relentless hand upon our brother, Dr. William H. Shepherd, and bore him to that bourne whence no traveller returns. The struggle was brief and agonizing, and all that a number of his professional brethren, who hastened to his bedside, could do, was done, but alas! without avail. The pain and anguish occasioned by a violent gastro-enteric trouble were more than his physical powers could bear, and despite the efforts of kind and skilful hands to relieve him he succumbed to the shock.

Dr. Shepherd was born in the county of Albemarle, Va., October 11th, 1840. He was graduated from the Medical College of Virginia March 11th, 1860. He enlisted in Company B, Albemarle Rifles, 19th Va. Regiment, April 9th, 1861, and served as private and first sergeant until wounded at Gaines' Mill, June 27th, 1862. He was then transferred to the medical department, C. S. army, and performed general hospital service until the close of the war when he re-

sumed the practice of his profession in his native county. In the latter part of the sixth decade of the present century he removed to this city. On the 5th of July, 1871, he was elected a member of this Society, and in 1873 he became a Fellow of the Medical Society of Virginia.

After about twenty years of professional toil in the city of Norfolk, he died at his residence on East Main street, in said city, on the 13th day of April, 1889, in the 49th year of his age; in view of which sad event the Medical Society of Norfolk, in special meeting convened,

Resolved, 1st. That in the death of Dr. W. H. Shepherd this Society has lost one of its oldest and most useful Fellows, and the medical profession one of its most accomplished members.

Resolved, 2d. That while we keenly realize the solemn warning which this sad event brings to each of us, and fully appreciate the loss we have sustained as a Society, we would fain forget our own griefs in the heartfelt sorrow and sincere sympathy we feel, but find no words adequately to express, for the bereaved family of our deceased brother.

Resolved, 3d. That as a token of our appreciation and sorrow, we will wear the usual badge of mourning for thirty days. Signed by Committee, Drs. L. B. Anderson, R. D. Bagnall, H. M. Nash.

Dr. John King

Was born in the town of Hampton, Va., the 23rd of August, 1821, and died at Grafton, Va., May 3rd, 1889. He was graduated from the Medical Department of the University of the City of New York, at the age of 21 years, and located in York county, Va., where he gained a large practice, which he enjoyed for more than forty years. He was very successful, and enjoyed the esteem of all who knew him. He would never absent himself from his business under any considerations, and therefore remained at his post during this long period of time. He was a hard student all the time, and kept well up with all the advances in the profession, and died literally in harness, having dropped dead while at the bedside of a patient in child-birth, a branch of the practice in which he was very skilful as well as proficient. He stood high with his brethren in the profession, and his death was a calamity to the community in which he had labored so long and arduously, for he was never known to refuse to respond to a call even from those from whom he never expected remuneration.

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Original Communications.

ART. I.—Clinical Lecture on Aneurism of Ascending Aorta.

By J. A. COMINGOR, M. D., of Indianapolis, Ind.

PROFESSOR OF SURGERY, MEDICAL COLLEGE OF INDIANA.

Gentlemen—The first case I present, is one of more than ordinary interest to the student of surgery. You will soon discover that this young man is seriously ill; though to the careless observer he does not show it; but as I progress in my examination you cannot fail to realize the truth of this statement as well as comprehend the full extent of danger.

I will now expose his chest, and at the very outset let you into the secret of his disability. You cannot fail to see that there is something radically wrong in the right clavicular region. Notice carefully the action of the tumor. You see it rise and fall, becoming full and tense at one moment and at the next soft and smaller. I place my fingers on it and my ear over it, and discover valuable diagnostic signs. The pulsation is synchronous with the beat of the heart and the purring sound is full and distinct.

Now these signs mean something, and if I read your thoughts correctly, I fancy I hear you say, *aneurism.* You answer correctly; there can be no doubt about the diagnosis.

You doubtless would like to know why I call this tumor

an aneurism: Because it involves the wall of an artery, and for the purpose of drawing the line between this and any other tumor. There are many varieties of aneurisms, but upon this occasion I shall confine my remarks to the clinical features of the case before you.

Our patient is twenty-six years old, and by occupation a commercial traveler. I have questioned him as to his family history and his own personal habits, and got nothing definite and reliable, however. He claims that his conduct in life has been fairly good. This leaves us without historical guidance, and we will have to accept the situation and do the best we can.

My first acquaintance with the case was about two months ago. His purpose in seeking me was to get my opinion as to the character of this swelling. It seemed that his physicians had not given satisfaction, as they had pronounced it an abscess, and urged the necessity of lancing it. This is the patient's story, and whether it is true or false, it serves my purpose in sounding the key note of caution in the use of the knife in doubtful swellings. I need not say, that to have thrust the lance into this tumor would have been a fatal mistake, as the bare statement is self evident of the fact. Mistakes of this kind have been committed, however, and that too by surgeons of high repute, but this will not exonerate you and me from committing a similar blunder. The mistakes of others should be to us invaluable lessons. They should teach us to look well to the surroundings before we make the thrust.

It is not a difficult matter to draw *the line between aneurism and abscess.* They have no symptoms in common, and are essentially and characteristically different in history and progress. Abscess means that inflammation of one type or another lies at the very foundation, and so the essential feature follows all through the course. There are finger boards posted all along the line, pointing the way to the diagnostician; and though he be a wayfarer, if he will but read, he need not err. The way to correct diagnosis is so plain and clear, that I think it useless to consume time on this part of my subject.

All pulsating and purring tumors are not aneurisms.

The solid tumor may pulsate because of its close proximity to a large artery. The encephaloid growth may pulsate and purr because of great vascularity. The diagnostic points between a purring encephaloid and aneurism are so fine and difficult, I will not attempt to describe them. You can only learn these by clinical experience. When your mind, ear and touch are properly trained, you will be able to make the distinction.

We now come to a turn in the road that is well calculated to confuse the diagnostician. Perhaps it would be more appropriate to call it a way-centre, composed of one great high-way and three by-ways or branches: and which to take that will lead us out of this wilderness of uncertainty is the question. To point out the artery involved will be our next endeavor.

There are four large arteries in this locality, either of which may be the site of this tumor. At my first examination I gave my opinion as to the artery implicated, and outlined my treatment, advising the patient to enter the hospital for operation. My opinion then and now, is that it is an aneurism of the ascending aorta. When we take into consideration the position of the aorta, its close connection to the tumor as well as the direct line from one to the other, I am quite sure that the opinion is correct. It is a fact that a tumor grows in the direction of least resistance. This may be said to be a law, as well as a plain and sensible proposition.

You see that the tumor presents at the right second intercostal space. In coming to the surface, it has simply obeyed the law and proposition stated above. If it were aneurism of the innominate, it is not likely it would appear at this space. The direction of least resistance is upward, and it would make its first appearance at the roof of the neck, at the intraclavicular notch. Subclavian aneurism is usually first recognized behind the clavicle and in the neck. If from any circumstance it should appear in the chest, it is not at all likely that it would drop to the second space. If the right common carotid were involved, we would find the tumor in the neck, along the course of that vessel, and not at the second space.

Next I will speak of the *treatment*. This is all important to our patient, as he is here solely for the purpose of getting relief. He knows that his condition is desperate, so desperate is it, that it will not bear trifling with. Such conditions must be met and resisted with bold and fearless measures. To stay the tide of destruction, even temporarily, will require decisive and prompt action. This, gentlemen, is the kind of case that puts the patient on his courage, and the surgeon on his metal. Ligation of the common carotid and subclavian is the remedy. It has been done in similar cases with a reasonable degree of success. Drs. Sands and Wyeth, of New York, are among those who have performed this operation, and the two cases reported by them were successes: that is to say, they lived more than a year after operation, dying from other affections wholly distinct from aneurism.

So you see. I am not stepping beyond the bounds of propriety and the facts, in recommending this operation. It is not an experiment; therefore I urge the patient to submit. Has he the courage? and will he submit? I wait for an answer. He declines. This is a positive surprise, for when admitted to the hospital, he fully intended to have the operation performed.

But why express surprise? When the story is told and the facts revealed, the secret of this change of mind is easily understood. The plain truth is that he has had entirely too much advice. He sought and found it in abundance. It was honestly given, and with the best intentions, but the diversity of opinion was so marked that it has completely unsettled his mind. It is said that "in a multitude of council there is safety." This maxim may be true and work well in some cases; but in one like this, it is positively dangerous. Opinions given except in corporate action are calculated to make a patient skeptical and lose confidence in his advisors.

Now that he refuses to accept what we believe to be the best, we must not abandon him to his fate, but look for a substitute. Did I say substitute? I know of none for this

case; but we may do something, if nothing more than strewing flowers in his path.—Better flowers than stones.

It is written and claimed that galvano-puncture, the thrusting of iron wire, or the injection of a styptic into the sac under some circumstances will effect a cure, but I reject all these as dangerous in this case. The aneurism is too near the heart; either would cause more inflammation than would be safe.

I have yet to consider the case from a medical standpoint. I do this reluctantly, for I have very little confidence in the efficacy of medicines in such pathological conditions. But as we are deprived of the use of all other measures, we will see if anything can be effected from this source. In some cases medicines used jointly with the rational method may succeed. I have a little faith in the physiological method when it can be properly worked. This requires the patient to assume and maintain the recumbent position until organized clot fills the sac. Mental as well as physical quietude must be insisted on. The use of heart sedatives for the purpose of controlling the heart's action, favors coagulation. The pulse may be reduced to fifty, forty or even less, to any point consistent with the powers of life.

I regard veratrum viride as one of the best of heart sedatives, and it is reliable and safe. The diet should not be overlooked, though it must not be carried to the extreme, at either end of the line. It should be sufficient in quantity and of proper quality to effect necessary repairs.

Valsalva made an effort to improve on nature's plan, and in my opinion made a signal failure. He taught, in addition, that bleeding and starvation to extreme were more efficient. If he or his followers ever effected a cure in this way, it has never been made a matter of record. His plan is visionary and unphilosophical. The method he proposed is, with here and there an exception, founded upon entirely erroneous principles. The physiologist knows that excessive bleeding and extremely low diet are not consistent with fibrinization of blood. Indeed, experience has proved the utter fallacy of this theory, and at the same time has

shown, that the only true and safe course to be pursued is the rational one, in which bleeding is interdicted, and a sufficiency of food is permitted to prevent irritability of the system which is sure to arise in case the body is imperfectly nourished. The quantity of solid food necessary to keep up this standard of action varies, but as a rule is not less than twelve ounces daily, and should consist of the essential articles, varied to suit circumstances. The founder of this theory evidently misunderstood the limit nature gave him. Like most reformers, he simply went to extremes, which is inconsistent with physiological law. Nature never purposely exhausts her vital forces to the lowest limit with a view to repairing any defect in her machinery; on the contrary, she conserves her forces, that repairs may be effectually made.

In view of this line of argument, I submit for consideration the following propositions, and leave the subject with you. Is it wise or business-like to put the life forces under a heavy mortgage for the purpose of making repairs? If you do, are you sure that the repairs will be made, the incumbrance paid off, and the record satisfied?

We will now send patient to his ward and ask the house physician to place him under the treatment herein indicated.

The prognosis is easy. A few short months will terminate his life. He will die from exhaustion or hæmorrhage. Most likely he will wear out.

Appendix.—This lecture was delivered in Indianapolis City Hospital in Oct. 1888. The patient died from exhaustion Feb'y. 24, '89. An autopsy was held a few hours after death with the following result: Aneurism implicated the ascending aorta and there was extensive absorption of bone, cartilage and muscle. The specimen remains in the museum, and can be examined at any time.

In all cases of Neuralgic and Rheumatic pains accompanying the colds that predominate in this damp and malarial region, Tongaline seems to be a specific. I find it a safe, easy and efficient remedy. C. W. Prindle, M. D., Grand Rapids, Mich.

Art. II—The Moral and Curative Effects of Associated Dining-rooms and Employment of the Insane.*

By ROBERT J. PRESTON, M. D., of Marion, Va.

Superintendent of the Southwestern [Va.] Lunatic Asylum, etc.

My intense interest in everything pertaining to the management and treatment of the insane, is my only excuse for presuming to appear before this learned Association. Though my experience in this specialty is limited and small in comparison with that of eminent gentlemen before me, who have devoted their lives and their best talents to this work, I trust that you will grant me indulgence.

The subject of congregate or associate dining-rooms, has elicited much interest and discussion—not only in this Association, but also very generally throughout the world; and, being somewhat of a new departure in asylum management, the results of the many experiments in this direction have been watched and studied with some enthusiasm.

The Southwestern Virginia Asylum, which I have the honor to represent in this Association, having been built within the last few years, this special feature was considered in its construction. For this reason, I feel called upon to say something as to our experience in this line.

We have in our asylum two dining-rooms—one for males and one for females—adjoining each other and connected by doors. Both are served from one common serving-room and steam-table in the rear. Each room is capable of seating 150 patients. In these dining-rooms, meals are served to all patients at the same time; nearly 200 patients take their meals therein regularly, and nearly 90 per cent. of our insane come regularly to meals. They are served just as in hotels; have cups, saucers, knives and forks; are waited upon by their attendants and the dining-room girls. Ordinarily, the behavior is as good as in hotel dining-rooms, and frequently convalescent patients assist in serving. We seldom have an accident and but few breakages. Patients

* Read before Association of Superintendents of Insane Asylums, Newport, R. I., June 18th, 1889.

becoming excited are removed at once to their wards; order and discipline are generally well preserved.

We have no ward dining-rooms; the meals for the sick and secluded are carried to their rooms. When our asylum was opened, we were at first fearful of the result, some few accidents and breakages occurring, and much confusion and disorder before proper discipline could be obtained; but now, our wildest patients are often brought out to the general dining-room, and good order is the rule. An attendant usually stands at the table of the excitable patients while others are serving, and any contemplated outbreak or violence is easily and promptly checked—by kind persuasion or restraint; or, if necessary, by prompt removal from the dining-hall. Patients enjoy their meals much more in the general dining room, and the moral effect manifested in the better behavior, the more quiet demeanor, and the orderly discipline is remarked by all. As a rule, each patient knows his, or her, place, and goes at once to it without any trouble. Pleasant, social conversation is indulged in, and laughter and cheerfulness on the part of many, serve to dispel the gloom of one or to calm the excitement of another, and thus a reciprocal benefit is conferred upon all. The moral and curative effects of this training, disciplining and educating patients is an important element in asylum management—the longer tried, the more appreciated. A female school lately visiting our asylum and seeing nearly 200 patients at dinner, several of the schools girls remarked to their President, "Why, they do not make as much fuss as we do in our dining-room."

In our Annual Report for 1888, September 30th, my worthy predecessor, Dr. Black (now deceased), uses this language: "The good manner and regularity with which the meals are served in the general dining-room; the large daily attendance (90 per cent.); the order and discipline observed, the restraining, and, at the same time, social feature, the readiness with which the officers may observe the tables and conduct of the patients and attendants, together with the trust given the patients by which they use knives and forks, and are waited upon as other persons, have proved so satisfac-

tory, that, with the evidence we have of other asylums making the trial, we may safely say that congregate dining-rooms are a complete success, and the day of ward dining-rooms numbered." With the added experience of almost another year, we can now say that the moral and curative effects of patients from different wards thus being brought together into a general dining-room go beyond our most sanguine expectations. In the language of a worthy member of this Association: "The general effect upon the minds of the patients has been good, and in a few cases strikingly so."

As to the second branch of my subject—*the effect of continued movement, employment, labor, and various diversions upon the insane*—we have in our short experience had some very marked examples. With the limited number in our charge, we have been able to individualize treatment to a considerable extent and to mark the effect more closely. From the beginning we have, in the words of Dr. Black, "Endeavored to make labor, as a valuable means of treatment, a prominent feature of this institution." In our brief experience, and with the limited means at our disposal, in addition to the usual work on farm, garden, road-making, and in the kitchen, laundry, bakery, soap house, etc., we have instituted shoe, broom and harness making, and are now utilizing much labor of patients on our brick-yard and in cleaning up brushy lands Many of our patients engage in base ball, croquet, quoits, and other games. The wildest patients often go out to these different kinds of work and diversions, and are induced to expend their superfluous vital force and energy in a useful and profitable direction, thus, not only benefitting themselves and others, but also doing away, to a considerable extent, with the necessity for physical and chemical restraint. Our experience leads us more and more each year to further development in this direction, and to still further diminution in the use of restraints—both physical and chemical—from which we have derived little benefit. No compulsory means are used.

In addition to these employments and diversions during the day, we have our regular exercises, as dancing, games,

singing and music, etc., every night of the week. In these pleasant recreations, a large percentage of our patients spend from one to two hours before retiring for the night. This we find is more conducive to sleep and quiet in the wards, and in the majority of cases we derive so much better results from these diversions which call out, as it were, the patients from themselves, that we have learned more and more to rely on these in bringing about the best moral and curative results.

The beneficial results of a *change* of asylums and even of a change of wards in the same asylum, is often productive of great mental improvement. Many of our patients are from rural districts, and, as said a distinguished alienist years ago: "In endeavoring to restore the disordered mind of the clod hopper, who has scarcely an idea beyond that of his manual employment, the great difficulty is to find some available point from which conservative influences may be projected. He dislikes reading, he never learned amusements, he feels no interest in the affairs of the world, and, unless the circumstances allow of some kind of bodily labor, his mind must remain in a state of solitary isolation, brooding over morbid fancies and utterly incompetent to initiate any recuperative movement."

We frequently note instances of rapid and complete recovery traceable to these means above noted, and some patients of several years' standing, having spent years in other asylums, we have seen, to all appearances, entirely restored by these means, especially by constant out-door employments and diversions.

Art. III.—Distinctive Forms of Inebriety—Habitual Drunkenness.

By T. L. WRIGHT, M. D., Bellefontaine, Ohio.

There is a particular type of drunkenness which, in many important respects, differs from all others. It is that which is usually known as habitual drunkenness. It does not spring from temporary and frivolous causes, and relate

to some delusive expectation of *external* and evanescent advantage to mental or physical movement—this is the characteristic of casual, or occasional drunkenness. Neither does it uprise from a powerful and overwhelming impulse from within the organism, and seek the lethal effects of alcohol for their own sake—with the ulterior motive of stilling *internal* and constitutional perturbations of nerve; this is the nature of convulsive, or periodical inebriety. The habitual drunkard is he whose normal condition has become the condition of drunkenness—who is never sober when sobriety can be avoided.

The habitual drunkard is a character well known to all the inhabitants of small villages and hamlets. He is daily seen staggering through the by-ways and alleys, clothed in rags, with swollen and distorted face, red, watery eyes, and tangled and matted hair; or, when not thus stumbling along, he may be found in some fence corner, or other retired locality, overpowered with the stupor induced by alcohol. He often has his bottle with him, and it is his habit when he arouses from his lethargy, to partake of the contents of his jug or bottle, and then reel on a little way to another place of stupid sleep, and thus he lives his life away. He is at once the wonder and terror of the smaller children in the neighborhood, who with eyes widely opened, fly in every direction when he approaches, so as to be sure and keep out of the clutches of "the drunkard."

The habitual drunkard, unlike the poet, is *made not born ;* he is in this respect also, unlike the periodical inebriate—that is, the dipsomaniac. He becomes thoroughly intoxicated and with premeditation every day. To "get drunk" is the paramount object of his life. If, perchance, he works a little at odd jobs, it is for the sole purpose of procuring the means to become and remain drunken. He has abandoned his manhood and his family, deliberately, wholly, absolutely. He makes no effort to reform. He prefers drunkenness to sobriety. His children skulk about the village dirty, naked, humbled and forlorn—how grandly a little child feels in nice, clean clothes!—shunned by their child mates, until, in the course of time, a savage feeling of hatred to the whole world

takes possession of them. The wife of the habitual drunkard is the village washer-woman and the pitiful drudge of allwork.

Who is this man, and what is the matter with him? The *occasional* drinker may take his dram on some frivolous impulse coming from accidental circumstances, or with, perhaps, no active motive at all, and generally there is the end. The *convulsive* inebriate, smitten at particular, but uncertain times, with a consuming desire for intoxication—a desire rising unconsciously from within, and having no relation with external circumstances, drinks to deep intoxication; but after the spell is over, he ceases to drink for many days together—ceases indeed for a considerable time to feel any desire or craving for intoxication. The *habitual* drunkard belongs properly to neither of these classes; yet he is, nevertheless, a *development*—having his starting point in one or the other of them. The casual drinker may possibly occupy such a position in life, that his opportunities and inducements for drinking are unusually strong; and by reason of frequent indulgence in drink, alcohol begins to exhibit its power in the production of physical degeneration. Changes in structure at length take place in the organism. *These* may demand, with an authority that cannot be ignored, the quieting influence of the paralysis of alcohol. The motiveless and idle act of "taking a drink" becomes radically changed. A most powerful incentive to drunkenness supercedes the listless indifference of the occasional drinker. The habitual drunkard, smarting all over and all through, with the physical wounds inflicted by alcohol, drinks profoundly to alleviate bodily pain, and calm mental distress.

The spasmodic drinker also, after a long series of deep and unbounded spells of inebriation, has become affected with a series of disastrous physical degeneration—the direct result of his early drinking habits. The time has now come to him, when the main incentive to drink is no longer the desperate and mysterious, but periodical impulse of a neurotic temperament; but it is the incessant irritation, the growing agony of relentless physical injury, inflicted by strong drink upon his living animal nature.

In general terms, then, it may be said that the habitual drunkard comes directly, either from the casual drinker, or from the spasmodic inebriate.

1st.—The paralysis of an acute fit of drunkenness is, of course, brief. Still, if it should be repeatedly induced by unwise indulgence in alcoholic liquors, there will eventually ensue an *habitual* obtuseness of nerve sensibility—upon the principle, that non-use tends to produce latency of function. The obtuseness of sensibility will extend, not only to the sense of feeling, but also to the nature of the intellectual capacity, and of the moral powers; for the paralysis of alcohol goes everywhere. The moral powers, indeed, are particularly sensitive to the depressing qualities of the alcoholic poison; and upon the frequent application of the alcoholic impression to their physical exponents, they become *habitually* repressed. The perceptive faculties also, are benumbed by alcohol, and they, too, become blunted by the continuous influence of that agent; and they are thereby *habitually* disabled. But there can be no rational exercise of choice or will in the drunken state, because mental comparison and judgment, upon which rational will is predicated, are, for the time being, impaired. Hence a continuous application of the alcoholic impress upon the nervous sensibilities, renders them *habitually* incompetent to minister to the manifestations of a rational will. The final result is, that the nervous powers of the occasional drinker may become so changed under the reckless use of alcohol, that the moral powers are made permanently obtuse, the perceptive and reasoning faculties permanently feeble, and the capacity for rational choice, permanently weak, or rather destroyed. Here, then, are furnished to hand, several important elements which enter into the distinguishing characteristics of habitual drunkenness—a weak will, a weak morality, a weak reason. The casual or occasional drunkard is rapidly becoming the habitual drunkard.

The readiness with which an habitual inaction of nervous power may affect the physical competency, is curiously exemplified by the experience of Dr. Livingston with respect to his native tongue, after he had been compelled to

abstain from speaking it for some time. Upon his return from the interior of Africa into the presence of his countrymen, he declared, that although he imagined he could talk the language with facility, yet, when he made the effort, "the words would not come at his call." Thus it is seen how it is, that the nature and consequences of casual drunkenness, as well as of spasmodic inebriety, combine to create and fortify habitual drunkenness. But the disabilities flowing from these sources, are not the only, nor indeed the chief elements that compose the nature of habitual drunkenness. The neurotic demand for intoxication to afford an inflow of pleasing ideas, and to smooth the asperities of a defective nervous constitution—so characteristic of the periodical inebriate—is probably not very urgent in the habitual drunkard. The continued paralysis of his nervous organism, must relieve him somewhat from the periodical form of alcoholic appetite, while the unceasing progress and advancement of structural degeneration begun in the casual and spasmodic inebriate continue in the habitual drunkard, and impel to heavy and unremitting intoxication.

2nd.—But there are disabilities besides those named that have been inaugurated in the earlier experiences of inebriety, and which are operative in the causation of habitual drunkenness. They are also increased and intensified, in the organism of the daily drunkard himself. One of these morbid injuries consists in an increase in the volume of the connective substance of the body. Sometimes this increase results in modifications of the size, consistence and activities of entire organs—as of the liver, kidneys, stomach, brain, etc.

Again, it may induce changes in the intimate construction of the nervous cords in various parts of the human organism, Such changes may be perceived by microscopic analysis. when a nerve is either transversely or longitudinally divided. Examples of damages inflicted upon the integrity and texture of the nervous cords, were exhibited before the London Pathological Society, (Dec. 4th, 1888.) A transverse section of the nerve (the plantar,) from the body of an ine-

briate, "showed degenerative or inflammatory changes;" another showed "interstitial thickening of the endoneurium." Longitudinal sections of phrenic nerve showed "degeneration of nerve fibres, with segmentation of the myelin;" same section of musculo-spiral nerve, showed "well marked segmentation of myelin." The anterior tibial nerve showed "nerve fibres in various stages of degeneration." Longitudinal section of another nerve showed "breaking up of the myelin." Section of peripheral nerve showed "interstitial inflammation changes." Longitudinal section of plantar nerve showed "increase of neuclei and infiltration with leucocytes." But the changes wrought in the integrity of the physical organism by no means stop here. Transverse, section of a muscle showed "increase of nuclei of sarcolemma and infiltration with leucocytes." Section of another muscle showed "round-celled interstitial growth." Section of kidney, from a case of severe alcoholism, showing "great congestion," was also displayed. Some idea of the great extent of the degenerative changes due to alcoholic influence which may effect the system is here offered. Not only are important and vital organs changed in their very texture, but the nerves and the muscles also partake in the destruction. In very truth, the wreck is universal.

Here, then, is a degenerative condition of the organism, which, unquestionably begun in the casual or the spasmodic drinker, at length pervades the entire system. An inexpressible distress, arising from an infinite number of points of irritation throughout the body, calls for relief, and the influence of alcohol is invoked to paralyze the morbid sensibilities. The intoxication of the habitual drunkard is a welcome respite and oblivion.

Nothing can be more evident than that the incentives to drink, in the habitual inebriate, must be different from the incentives to alcoholic indulgence in the same man when first he partook of alcoholic liquor. They may not be, it is true, *additional* to the causes of his morbid proclivity in the first place. Possibly, the original convulsive predisposition to intoxication has disappeared. But there is established in its stead, a feeling that is always present,

always raging, always in agony, crying for the oblivion—the annihilation, be it ever so brief, that comes from absolute drunkenness. But even this does not complete the tale of the motives actuating the habitual drunkard in the formation of his habit of daily intoxication.

3rd.—It has been shown that heart disease is frequently an outcome of excessive indulgence in alcoholic liquors. The immediate effect of alcohol upon the heart is to increase the frequency of its pulsations. Alcohol will also make the heart "tense," and will dilate its chambers, weaken its walls, and derange its valvular construction. Strong drink, moreover, causes an undue stretching and distention of the arterial sides—destroying the elasticity while increasing the diameter of those vessels. Besides all this, alcohol has a tendency to enlarge the veins, rendering them bulging and capable of carrying a sluggish stream only of blood within their walls. The ultimate effect is to derange and weaken the circulation; for a powerless and dilated heart, enlarged and inelastic arteries and bulging veins must impress upon the circulation the qualities of feebleness and inefficiency. A weak and irregular circulation is conducive to derangements of both the bodily and mental powers. The feelings vary—at one time being exalted, at another, depressed and melancholic. Persons thus disabled say "they feel the sustaining power of alcohol," and imagine they must have it. They often use it to remove the melancholic moods, and the indisposition to every species of effort which naturally arise from a languid and imperfectly vitalized circulation. In order to send the blood freely to the brain, as well as to change and renew it in every part of the system, alcohol is taken in quantities more or less copious.

The inebriate affected with heart trouble, does not know of these special reasons why it is that he finds solace in strong liquors, but he has come to know by trial, that alcohol will relieve him of a most heavy and doleful apathy, and he feels confident that it does him great good. The fallacy of appearances cannot be more conspicuous than is shown in the inebriate suffering with heart disease; for, not only is the malady produced by alcohol, but every indulgence in

drink increases the evil it is supposed to alleviate. It is difficult, if not impossible, to find any physiological contingency, wherein alcohol will not prove to be "a mocker."

Many eminent men, persons of enlarged ideas and trained minds, have, through association, false notions, or constitutional proclivity, become the victims of the alcoholic habit. Quite likely, they have drunk largely and frequently to excess, as periodical inebriates—for such men are apt to be of a neurotic constitution. At length, a time arrives when a special effort of forensic or senatorial eloquence perhaps becomes expedient. Large quantities of strong liquors are very apt to be taken as a preliminary necessity. The orator possibly imagines that he is oppressed with great weight of thought, and he thinks alcohol will afford to him increase of nerve and strength. He may suppose that strong drink contains within its own nature, certain properties that will open the chambers of intellectual brightness, and thus, it may render to him, aid and comfort in forwarding his designs.

However this may be, there is no question that many beholders really believe that the fire of eloquence which flowed in burning words from the lips of the speaker, owes its brightest qualities to the inspirations of alcohol. The quantity of strong drink consumed upon special occasions like this, is sometimes enormous. With open-mouthed wonder, not unmixed with admiration, the spectator sees incredible quantities of the strongest liquors poured into the throats of certain public speakers when they are aroused by great occasions. Not uncommonly the listener comes into the belief that the stronger the mind, the better it can carry alcoholic stimulants, and the more good they do. Cyrus, the Younger, was wont to boast of his capacity to drink great quantities of wine with impunity. His expedition was easily defeated, and he was himself killed for all that. "See how that eminent personage drains his bumpers of liquor! *What a strong mind he must have,*" is the mental ejaculation of some admiring beholder.

All this is simply delusion. What are the facts? The real truth of the whole matter is this: The grand states-

man and orator, so eloquent and so admirable, is a drunkard —quite likely an habitual drunkard. Very, often, indeed he is under the influence of alcoholic liquors. In his early life he was, possibly, a periodical drinker—a convulsive inebriate. He indulged in hard sprees, "larks," as they are called in pet language For a long time he went upon them with increasing frequency. His heart, arteries, nerves and muscles began, at length, to fail in the full performance of their duties. The man, at first a neurotic inebriate from nerve instability, has become a common drunkard from the disabilities of physical degeneration.

To obtain relief from the pressure and inconvenience of all these great and growing troubles, the power of alcohol is invoked and habitual drunkenness is the result. The opportunities for a high position in life, and the care and watchfulness of friends, combine to conceal the real extent of the infirmity. It does not, as a rule, appear openly and disgustingly, and every day upon the streets, and especially in the habiliments of poverty, uncleanliness and rags; but it is none the less real.

This man has probably been favored by nature with bright capacities in every way. His opportunities for improving them have been of the best Ambitious, he prepared himself for a career of honor and usefulness. At all times, when in good health, his ideas are noble, their arrangements striking, their delivery grand and convincing. He appears only on great occasion and in the midst of his equals. But, notwithstanding his shining abilities and magnificent opportunities, he is an habitual drunkard. Unaided, he has become helpless. He is nervous, diseased, weak. His heart and circulation are particularly enfeebled, depressed. The consequence is, his mind has become stupid. The man is incapable of displaying the real force and brightness of his intellect. A feeble heart maintains a languid circulation of dark and lifeless blood in the brain. The effect is, a final resort to the stimulating properties of alcohol.

Under this influence the heart resumes something of its old vigor and activity. The stagnant blood begins to move along and fill the arteries, and the vital current flows through-

out the entire system in its ancient strength and volume. The orator is clothed with renewed power, and his mind is aglow with the fire of better days. There is no longer hesitancy in the delivery of sentiments, principles, illustrations, framed in the elegant and majestic phrase of true genius. Senates listen with pleasure, and the whole world applauds. To accomplish such ends as these, it is often necessary for the drunkard to use alcohol in astonishing quantities; for, *in exact proportion to the physical degenerations present—and particularly in proportion to the disabilities of the heart and circulation, will be the necessity for the alcoholic influence.* Alcohol does little more at its best than raise the powers of the habitual drunkard to a level with their natural standard. The degeneration and defects it is called upon to overcome, are of a nature so profound, that the disabling effects of the stimulus upon the constitution are not being greatly apparent. Such great quantities of strong drink are demanded to elevate the sunken powers of the daily drunkard to a working plane of activity, that its influence can go no further, and the man becomes, thereafter, sodden, sluggish, senseless.

It is apparent, therefore, that habitual drunkenness is, in several essential particulars, *sui generis*. The motives which lead to daily intoxication are not accidental; nor are the original traits in the constitution. The incentives to this form of intemperance are the outcome of gradually advancing physical degeneration and disease. The casual inebriate drinks from idle fancy, or it may be, to further, for a brief period of time, some projected enterprise, either of body or mind. The impulsive dipsomaniac drinks for speedy and complete intoxication to overcome nerve distress, arising, at periodical times, from an unstable nervous constitution, sometimes hereditary, at others acquired. But the habitual drunkard partakes of alcohol to dispel a sense of universal agony, that arises out of the several structural degenerations that have been dispersed throughout the organism, by other and earlier forms of intemperance. Not only are these physical degenerations, causes in themselves sufficient to establish habitual drunkenness, but they increase, and spread,

and multiply still further, by reason of the daily intoxication. The ulterior consequence is, that the latter stages of continuous intemperance become noted for weakness and imbecility of mind. The daily drunkard at last becomes silent. He has few words and few thoughts. His range of ideas are confined mostly to the exigencies of his besetment. He is apt to become a fisherman, or to betake himself to some other simple employment, that secures quietness and solitude. He has abandoned all notions of respectability. He has fully made up his mind that he is a common and hopeless drunkard, shunned and despised by all, and he skulks in and out of by-ways and alleys, avoiding, as much as possible, the sight and association of human beings.

Nearer, day by day, he approaches the last scene in the tragedy of drunkenness—the scene of *chronic inebriety*. The line itself between habitual drunkenness and chronic inebriety is, no doubt, somewhat indistinct, yet once fairly passed, the characteristic features of chronic inebriety are plain and well defined—exhibiting another and final type or form of drunkenness—a type differing from every one else in nature, in movements and responsibilities.

Art. IV.—Paroxysmal, Congestive Hepatic Hæmaturia.*

By THOMAS P. GARY, M. D., Ocala, Fla.

I have selected for my theme one that the medical profession seems to be very little acquainted with, though a great deal has been written upon it, and incorporated in our text books as authority; and while I am at variance with much that has been written, I feel satisfied that I will be able to produce convincing proof of the correctness of my views upon this important subject.

The disease is by no means a new one, but the literature connected with, and relating to it, dates only from 1867 and 1868, when from its frequency and fatality, it began to attract the attention of the medical profession at large. "Ma-

*Read before the Florida Medical Association, January 30th, 1889.

larial hæmaturia" was observed by Dr. C. Giddeon Young, of Louisiana, in October 1843, and Dr. R. H. Day, of Baton Rouge, affirms that he encountered this disease as early as 1837, in the bottoms of the Wabash and White Rivers, of Illinois and Indiana. The idea, then, that it is of recent origin, would seem to be erroneous, and irrational. If we are correct in supposing that the same causes and conditions which now engender it have existed in all past time, they must have exercised the same pathogenic efficiency then, as now.

Having experienced this variety of malarial fever early, during a continuous practice of over thirty years in Florida, and having treated over seventy-five cases of this disease during that time, I feel prepared to offer an opinion as to its origin, classification and treatment.

The late Dr. Greenville Dowell, of Texas, in a work on Malarial Diseases, maintains, that there are, in warm climates, three kinds of fever, in which the skin turns yellow in certain stages; and that they are indigenous to Cuba and other West India Islands and Africa.

Notwithstanding the classification above named, "malarial fever," usually called malignant hæmorrhagic, congestive, or bilious, swamp yellow fever, Mauritius yellow fever, typho-mucous, (our hæmorrhagic malarial fever); to which I have added the name given by Harley—"paroxysmal, congestive, hepatic hæmaturia," which in my opinion is the proper name, being more descriptive of the physiological condition of the parts diseased=the pathology of this disease still seems to be sub judice." Although easily recognized, it is classed as a separate entity, belonging to a group expressed by the vague term "malarial."

The second variety, "hepatic acute," or the yellow fever of all climates, is marked by jaundice, with or produced by inflammation of the liver, spleen and bowels.

The third variety or "infections yellow fever," (a fever of one paroxysm, and generally without a second attack), describes the last of the three varieties of the classification.

Of the first two there may be any number of attacks, as they are of an enduring paroxysmal type, though contin-

ued, and are paroxysmal in their incipiency in every case.

As I only wish to consider one of these varieties—*the first above named*—I shall dismiss the other two without comment, as they are fully understood by the profession.

I have consulted the best authorities, and especially Dowell, Harley, and Jones, who admit that the disease is unquestionably of malarial origin, and consists of two types—intermittent and remittent. No one explains its origin, though the exciting causes are many, such as bad food, bad water, imperfect cures of intermittent and remittent fevers, and probably the excessive use of whiskey, or other alcoholic drinks. The symptoms of the intermittent variety are chills, fever, the free discharge of bloody urine, obstinate constipation, and excessive irritability of the stomach, sometimes resulting in continued vomiting, hæmorrhagic urine, ceasing with the decline of the chill, and returning with the next paroxysm; the skin is bright yellow, contracted over the muscles, and puckered and flabby; the face, eyes, and skin show malarial poison. Urine is bright reddish at intervals between the paroxysms, or may continue until complete suppression, which is always fatal; it is a favorable condition, however, when profuse.

The remittent variety, (the most pernicious type), has, in addition to the above, enlarged spleen, constant fever, reddish tongue, skin sallow or yellow, liver tender and enlarged, as also stomach; sometimes offensive stools; urine albuminous, possessing the notable characteristic of a high specific gravity, is always over 1000.15, while in real albuminuria, it is under 1000.10. One of the most remarkable features of this affection consists in the strange fact that although the abnormal urine is passed by the patient during the attack, it contains the whole of the ingredients of the red corpuscle, with scarcely a single blood cell to be detected in it by the microscope, their debris being at the same time visible in every direction; nor is the urine, in all cases of hepatic disease, and in no single form of liver or any other disease, so abnormal as it is in this.

Another striking feature is, that when the patient is in the cold stage, he always passes bloody urine, whilst at other

times it is perfectly healthy. The copious deposition of water, as well as the excessive elimination of urea, which takes place during the attack, point to considerable general constitutional disturbance.

I have endeavored to describe this fever sufficiently clearly so that it may be recognized wherever seen. Yellow fever only can be mistaken for it when both prevail at the same time and place. Both make their appearance about the same season of the year, though one will often meet with cases early in the summer before yellow fever may be expected.

This disease being of a malarial origin has led physicians into great error as to treatment—most authors recommending the use of quinine in some of its forms at some particular stage of the disease. My experience has taught me that quinine and morphine in any form administered, will most assuredly kill the patient, or hasten his death.

Before entering upon the therapy of the disease, it will be necessary to understand something of its pathology—without indicating any opinion as to where or in what way the primary impression is made, resulting in a series of morbid phenomena, which, taken together, constitute the disease.

The hæmaturia is thus to be explained. The effete blood corpuscles, not being removed from the circulation by the secretion of bile, as in health, become eliminated by a vicarious action of the kidneys. The kidneys thus assume a state of congestion predisposing to hæmorrhage. In this condition of the renal organs, the blood is retarded in its course through the abdominal viscera, by inaction of the liver, while at the same time it takes on a more hæmorrhagic tendency in consequence of not receiving that peculiar impress it is the office of the liver to impart to it—such tendency being heightened by the solvent principles contained in the bile acids resulting in hæmorrhage. It is exceedingly important that all these abnormal processes should be clearly recognized, understood and appreciated in order to institute a reasonable and scientific treatment.

It is obvious that the chief difficulty heretofore in the way of correct treatment was the misconception or misap-

prehension of these lesions, which are so pathognomonic. And it is much to be deplored that in the present treatment of this disease there is, at best, so little unity of opinion or practice. One physician will insist upon the exhibition of mercurials, even to the extent of constitutional effect; another reads in the spanæmic condition unmistakable contra-indications of their use, deprecates them as defibrinizers and spoliatives, and will have it that, so far as the liver is concerned, its only effect upon that important organ is to diminish the secretion of bile; a third confines all his hopes to the use of opiates to quiet irritations so necessary to the preservation of the economy to prevent fatal toxæmia already imminent; it being a miasmatic disease, urges another to use antiperiodics, and he selects the inevitable sulphate of quinine; while another asks (and, in my opinion, very correctly), are you not adding fuel to the fire by giving quinine under such circumstances? And, besides, do you forget that the cases are not few in which your favorite salt has produced this identical condition? Another suggests "iron" as a hæmostatic; another, turpentine—the free use of turpentine; another, acid of lemons and lime juice, while another ant-acids. Bewildered by such a diversity of opinion, the conscientious practitioner, anxious to relieve his suffering patient, turns away in disgust, and more readily than ever denounces the possibility of there being any specific in the cure of this disease.

Having thus described the routine pursued by others, I will now give my views as to the best course to follow.

Whether in a mild or a severe form, the free use of mercurials in combination with bi-carbonate of soda or ipecac is absolutely necessary in order to make a complete cure. As I have no faith in the quinine cure, I shall particularly consider that remedy, as some of the profession regard it as a *remedium principale* in all cases of malarial fevers. My experience pronounces it inadmissable for the following reasons: Quinine is eliminated by the kidneys. These organs, being in an active congestion and unable to perform their natural functions, are not able to eliminate the smallest

amount of the anti-periodic salt, and its presence in the system tends directly to increase the congestion of the portal system (already complained of), and the seat of this disease.

In substantiation of this position, Dr. Joseph Jones gives in his *Memoirs* the following statement by an eminent physician of the State of Louisiana. In 1875 there existed a peculiar form of malarial fever in which the patient urinated blood. Nearly all, if not all of the first cases were fatal, and it was the general belief that death in these cases was due to the quinine administered, and patients finally refused to take it. Another physician informed him that he persistently used quinine and lost his patients; now he rejects its use altogether, and the mortality has very much lessened. I therefore feel safe in saying that if you will withhold the use of quinine and morphine, and go to work to make the gall duct excrete its bile until the actions assume a golden cast, you will save your patients if it is possible they can be saved, if no antiperiodic is used at all. When I do administer antiperiodics, I prefer "fucus marina," or Warbridge tincture as used in England, which are not eliminated by the kidneys.

To aid the action of mercurials (if used), apply dry cups to the epigastric and right hypochondriac region with a view to drive the blood from the congested vessels of the stomach and liver to the cutaneous surface and follow the cups, if necessary, by a blister over the same region. To maintain the circulation in the skin and to aid in stimulating the liver to excretory action, use mustard in bath or applied dry locally to back, arms and legs, supplemented by dry heat to the body. The peristaltic actions of the bowels should be assisted and encouraged to action by the free use of enemata of warm, (sometimes cold) water. If the kidneys should fail to excrete urine, use frequent frictions over the lumbar region with warm whisky and spirits of turpentine, sometimes internally administered. Spirits of nitre as well as turpentine act very favorably as diuretics, and help to stimulate the kidneys to action and change the character of the bloody urine. To reduce the febrile excitement, use

antipyrin, aconite and digitalis. Fluid nourishment should be given to assist the bowels to action and to nourish the patient. If the patient is much depressed and threatened with collapse, stimulants will be required, such as brandy, etc., to tide him over until the liver and bowels can eliminate that tarry and vitiated bile that has been locked up in the gall duct because of the congestion.

I have simply endeavored to give a general outline of a plan of treatment which has been successful in my hands even in the most aggravated forms of this disease. I feel secure in saying that in recommending this method of treatment, the profession will have no cause to regret the adoption of it, and will find that success will crown their efforts. The doses and applications of medicines in any disease will depend very materially upon the necessities of the case, and practical experience will be a very safe guide to follow in treating a case. The outline here given fulfills so completely every pathological condition and indication that even when not successful (for some must of necessity die), the physician's mind is left with the composing reflection that nothing more could have been done to turn "the shaft of Death."

Art. V.—Two Laparotomies, with Comments.*

By J. EDWIN MICHAEL, A. M., M. D., of Baltimore, Md.,

PROFESSOR OF ANATOMY AND CLINICAL SURGERY IN THE UNIVERSITY OF MARYLAND, ETC.

Case I.—*Soft Solid Tumor of Uterus—Displaced Ovaries Removed—Latent Pneumonia—Hæmorrhage from Bowels—Cause Unknown—Death on Thirty-eighth Day—Autopsy Negative as to Cause of Death.*

F. S., mulatto, aged 37 years, unmarried, was referred to me in November, 1888, by Dr. Howard Osburn, of Rippon, W. Va. The patient was a somewhat frail person, but had enjoyed good health prior to the fall of 1885, when she noticed a small lump in the right inguinal region. This lump increased slowly in size, giving some little discom-

* Read before the Medical Society of the State of West Virginia, July 18th, 1889.

fort; the menses in the meantime remaining regular, until August, 1888, when more or less menorrhagia was developed. From this time on, the free loss of blood to which the patient was subjected each month began to tell on her constitution, and it became evident that something radical must be done, or she would die of exhaustion. Since the first appearance of the tumor, she had suffered much from constipation.

Physical examination left the diagnosis in doubt. The history of the case was plainly that of myoma of the uterus, and examination was undertaken with a strong prejudice in that direction. The general appearance of the belly was that of a first pregnancy advanced to about the seventh month. The tumor was oval or rather ovoid, and extended about three inches above the umbilicus. On palpation, it was evident that a thin layer of fluid intervened between the tumor and the abdominal wall. On percussion, a resonant sound could be elicited around the flanks and above the upper margin of the tumor. The note was perfectly flat all over the tumor. The manipulation of the tumor gave a sensation which was taken for fluctuation, although the tightly stretched abdominal walls held the tumor so tightly that this sensation was obscure. As far as could be judged, the tumor was not adherent, but could be moved slightly from side to side. The cervix was rather small, presenting a virgin os, and repeated attempts to pass the uterine probe failed to advance the instrument more than an inch. No motion could be imparted to the cervix by movements of the tumor. Pregnancy was excluded by the history, auscultation, and the condition of the cervix.

I was unable to make a positive diagnosis. The history of the case, with one exception, and the race of the patient, pointed to myoma of the uterus, but the apparent fluctuation, and the fact that the tumor had reached such size without interference with menstruation, seemed to negative that idea, as did also the fact that it was impossible to impart any action to the cervix by moving the tumor. Fibrocyst and ovarian tumor are equally uncommon in the colored race, and the non-participation of the cervix in the movements of the tumor, as well as the history of the case, pointed rather to the latter than the former as the more probable of the two, as the cause of the trouble. Laparoto-

my was therefore proposed as the only means of clearing up the obscurity and offering any chance of relief and was accepted by the patient.

The operation was done on December 20th, 1888, at the Maryland University Hospital. All antiseptic precautions, except the spray, were observed. Ether was the anæsthetic used. A three-inch incision, about two inches below the umbilicus, revealed a smooth white tumor having no adhesions so far as the finger could detect, and which, to those present, seemed to fluctuate. The introduction of the trocar, however, revealed another case of deceived *tactus eruditus*, and demonstrated the tumor to be a soft solid. Dark venous blood poured from the trocar wound in appalling quantity. A finger introduced into the trocar wound served as a tampon, while the question as to the next step of the operation was considered. I determined to close the wound in the tumor with sutures, at least temporarily, before making further investigations. This was accomplished with some little difficulty by passing Lembert sutures across the wound after the manner of closing a perforated intestine, and I was much gratified to see the hæmorrhage stopped after tying the sutures.

The abdominal wound was then enlarged, and the whole hand introduced. I thus learned that the tumor consisted of the whole uterus, very symmetrically enlarged and twisted on its axis. The right ovary was found in front, low down and flattened against the abdominal wall. This, with its tube, was tied off with the Staffordshire knot and removed. The left ovary could not be reached, but was presumed to occupy a position opposite the right The tumor was therefore carefully rotated, and, finally, after a good deal of trouble and more or less risk, was brought within reach of the hand. It was removed as the right had been, and after removal showed a torn surface, by means of which it had evidently been adherent to some other structure. Sponges pushed down into the deeper parts of the abdominal cavity, however, revealed no bleeding, and the laparotomy wound was closed with sublimate silk.

The patient stood the operation well, and was put to bed in very satisfactory condition. During the first three days she received only a teaspoonful of whiskey in a corresponding quantity of hot water every two hours. At the end of this time she passed flatus from the bowel, after which she was allowed a cup of beef tea morning and night.

On the third day the temperature reached 101.8°, and the pulse 120, and there was some abdominal pain and soreness but no tympanites.

On the fourth day the temperature fell to normal and remained so for two days. The pulse, however, continued rapid, as the patient was quite weak. The pulse also came down to 110 on the fifth day, and to 100 on the sixth. During this time she had several natural movements from the bowels.

On the tenth day, as both pulse and temperature had been rising for several days, it was deemed advisable to examine the wound. It was found closed by first intention throughout its whole extent, and all the sutures were removed. There was no swelling of the abdomen, no tenderness on pressure, and, in fact, the belly presented all the appearances of complete healing. I was naturally at a loss to account for the unfavorable change in the vital signs, and concluded that a thorough physical examination would be in order. The patient complained only of soreness about the back. I soon discovered that there was decided pneumonia of the lower lobe of the right lung, which explained all the trouble. This attack of pneumonia ended in resolution, and by the twenty-fourth day after the operation the temperature had come down to 99.2°, the pulse ranging from 99 to 100.

The patient sat up a little on the twenty-seventh and twenty-eighth days, and was regarded as about out of danger, as all abdominal symptoms had long since passed away and the size of the tumor had markedly diminished.

On the twenty-ninth day, however, a terrific hæmorrhage of the bowels occurred, and it was with the greatest difficulty that she was kept alive for the night. The state of acute anæmia thus brought about was treated with the greatest care. The diet was scrupulously regulated, turpentine and ergot administered, and perfect rest imposed. There was a slight recurrence a few days later, but no further great loss of blood. The temperature gradually crept up to 103° and over, the pulse ranging from 140 to 150, and the patient died on the thirty-eighth day after operation.

A careful post-mortem examination, made by Dr. C. W. Mitchell, the Pathologist of the Hospital, revealed no cause of death except the ordinary anæmia of all the organs. There was no sign of peritonitis; the wound made by the trocar was entirely healed, and the sutures used to close it encapsulated; the stumps of the ovaries and tubes were per-

fectly cicatrized, and although the intestine was slit up from end to end and closely inspected, no ulceration or other source of hæmorrhage could be found.

CASE II.—*Left Ovarian Cystoma, Bound Down by Thick, Fleshy Band—Ovary Removed—Recovery by Twentieth Day.*

K. H., aged 34 years, unmarried, was referred to me by Dr. Snodgrass, of Martinsburg, W. Va.. In April, 1888, the patient had noticed an enlargement in the left flank, which was accompanied by some pain. As the lump increased in size, which it did rather rapidly, the pain increased in severity. She suffered much from diarrhœa and painful micturition; the menstrual flow remained regular as to time, but diminished in quantity. She emaciated rapidly, and showed typically the *facies ovariana*. Palpation showed the tumor to be largely fluid, although a large mass of solid matter could be definitely made out. The tumor was not symmetrical—the fluid portion bulging out the right side considerebly while the solid portion lay to the left. The uterus lay well inclined to the right side, and presented no other abnormality. The whole tumor was flat on percussion, and but slight resonance could be elicited in the flanks.

Diagnosis, ovarian cystoma of the left side.

Operation December 31st, 1888. Antiseptic precautions, less spray. The usual ovarian incision being made, the glistening pearly white surface of an ovarian cyst was seen; but running perpendicularly in the median line, and holding the tumor firmly bound down, was a thick, fleshy band of tissue. The belly was so completely filled by the growth that its character could not be definitely ascertained, although, so far as could be determined, there were no adhesions above. The tumor was slightly adherent to the belly wall below. The trocar was introduced, and several cysts tapped successively—some yielding straw-colored fluid of different shades, and one a fluid looking exactly like pus. This fluid, I regret to say, was not examined microscopically. The tumor was now much decreased in size, but was still fixed in its bed by the fleshy band previously referred to. I then enlarged the incision, and after a great deal of trouble and more or less uncertainty as to what I was doing, peeled off the retaining band and separated the adhesions to the abdominal wall.

The tumor was an intra-ligamentary one, and it was ne-

cessary to enucleate it from the broad ligament, the upper edge of which was represented by the band before mentioned. The fact that so large a part of the growth was solid, made this task one of unusual difficulty and required a very large incision. It was, however, finally accomplished—fingers being the instruments used. When the tumor was so far enucleated that delivery was possible, it was found that two ligatures would be necessary—one for the pedicle proper and one for the stump of the broad ligament. These points were tied with sublimated silk and dropped back into the belly.

I was in some doubt as to the propriety of using drainage, as there was so large a raw surface left, but as the bleeding was not great, I concluded not to do so. The cavity was freely flushed out with hot boiled water several times, removing all clots, etc. The incision, about eight inches long, was sutured with sublimate silk and the usual dressing applied.

The subsequent history of the case is monotonous. She was kept on starvation diet for several days—*i. e.*, until flatus had passed, and on the fourth day had a dose of salts for her bowels, which was absolutely all the physic she received. Her temperature never reached 100, and she complained because I would not let her sit up at the end of the first week. The sutures were removed about the eighth day. The patient sat up on the 13th and left for home well on the 20th.

Remarks.—I do not think it incumbent upon me to go into the dangers and difficulties of abdominal surgery on the present occasion, as the literature of the day is simply overcrowded with such matters; nor do I intend to entertain the Association with a mass of statistics and quotations and for the same reasons. But there are some points of unusual interest in the cases I have related to which attention should be directed. We owe it to each other to publish our mistakes as well as our successes, not only on the score of common honesty, but in order that our brethren may avoid doing the like and perhaps save a life which would otherwise have been sacrificed.

The two points in regard to the first case to which I would like to draw attention are—first, the difficulty of diagnosis, and second, the peculiar manner in which the patient came

to her end. As has been previously said, I entered upon the examination of this case with a distinct prejudice in favor of myoma, and after as careful a consideration of the case as I was capable of, came to the conclusion that, while it might be myoma, it was more likely to be ovarian tumor. The reasons which brought about this change of opinion were the following: The tumor had reached a considerable size before there was manifest any menstrual irregularity. The tumor was regularly ovoid. I thought I detected fluctuation in the growth. There was no change in the portions of the uterus within reach and no motion could be imparted to the cervix by moving the tumor. The fact that the patient was a virgin with firm, tense belly walls, of course made the case more obscure. It is true, I did not make a definite diagnosis, and held fibro-cyst and myoma still in view as possibilities. Whether another could have been more definite I cannot say, but I am sure I used all the diagnostic skill and care of which I am capable, and I do not see that my experience with this case would make me any more certain in another like it.

It would seem that there is a good deal of truth in the maxim of Tait, that a diagnosis can be made with much more certainty after the belly is opened. The error of mistaking a soft solid tumor for a fluid one is distressing; but the fact that it occurs with no little frequency among skilled and experienced operators makes one feel a little more comfortable after having committed it. I think the event proved that after this error had been committed, the proper course was pursued in suturing the wound and leaving the tumor, instead of accepting the only other alternative and doing hysterectomy.

Now, as to the course of the case after operation. It was shown by the post-mortem examination that the wound had healed after the first intention, that there was no peritonitis, and that the internal parts were little or not at all affected by the operation; in short, that when the pneumonia supervened, the woman was practically well, so far as the operation was concerned. The pneumonia ran a mild course and

ended in resolution, as was apparent on the twenty-fourth day by physical examination, and proved later by the post-mortem examination. It was therefore probably not a septic pneumonia. On the twenty-eighth day the woman was again apparently out of danger, her pulse and temperature having returned to normal, and her general aspect being that of convalescence. The occurrence of the hæmorrhage from the bowels, and the subsequent history of the case up to the time of death, does not correspond to anything with which I am familiar either in my experience or in my reading, and I would be very thankful for a satisfactory explanation of it.

I have very little to say about the *second case*. The diagnosis was easy. The operation was difficult, but not remarkable; but the woman's belly was open an hour and a half. There was great laceration of tissue, and a tumor of at least thirty pounds in weight was removed, and yet during her convalescence her temperature never reached 100°. She made no complaint whatever, and took not a particle of medicine except the single dose of salts. Of course I attach great importance to the antiseptic precautions which were taken in preparation for operation; but I believe the liberal flushing out of the belly with hot boiled water was a very important element in her rapid uneventful recovery. It may be, however, that some credit ought to be given to the natural toughness of the individual, for I had previously resected a tuberculous elbow for her, and the wound had healed in two weeks under one dressing.

MESSRS. REED & CARNRICK:

Gentlemen—It gives me pleasure to say that I regard your Food Preparations *far superior* to all others. I can point to many little ones whose lives, I feel confident, were saved by them. I have been practising medicine in Texas for twenty-two years, have tried many other preparations, but after all I hold to yours as the old reliable; they have never disappointed me. My motive in making this statement is that others may be induced to give them a fair trial.—J. L. CUNNINGHAM, M. D., Dallas, Texas, June 5, 1888.

Clinical Reports.

Case of Craniotomy with a Pocket-Knife.

By RAMON D GARCIN, M. D., of Richmond, Va.,

LATE ASSISTANT SURGEON TO S. C. P HOSPITAL, ETCS.

Several months since I was hastily summoned to see Ellen B., a negro girl of 18 years, and, on reaching the house, I found a well-proportioned primipara who, according to her mother's statement, had been in labor for the last twenty-four hours; and the old granny present said that "she was stuck fast."

On vaginal examination, I found the head at the pelvic brim and much larger and rounder, apparently, than the normal fœtal head. Very careful examination showed no pelvic deformity. I remained with the woman several hours—the pains recurring at regular intervals, but the head made no progress, remaining at the pelvic brim.

All the signs pointing to the existence of hydrocephalus, and desiring additional advice, my friend, Dr. R. T. Ellis, was summoned. After careful examination under anæsthesia, he fully concurred with me as to the existence of hydrocephalus and advised craniotomy at once.

The patient being in a weakened condition, and living at a distance from my office, I performed the operation with my pocket-knife, as neither Dr. Ellis nor myself thought it advisable to lose valuable time in going for the necessary instruments. The head was easily opened, and, with the aid of a blade of Hodge's forceps the woman was soon successfully delivered.

Fearing some of the complications which so often accompany an operation of this character, antiseptic vaginal injections were at once ordered, and full doses of sulphate of quinine at proper intervals.

I saw the woman soon the next morning, and she was progressing nicely, her temperature being only 99¼° per orem.

She continued to improve, and made an uninterrupted recovery, and is now cooking for a prominent family within a stone's throw of my office.

What was to me the most notable feature in this case was the nearly entire absence of fever, the highest temperature

being 99⅘° per orem, and that rapidly diminished under the influence of small doses of quinine.

It may be worthy of note that the operation was done with an ordinary, *small* pocket knife.

2308 *E. Broad Street.*

Correspondence.

Jaccoud's Treatment of Typhoid Fever—Comments on It, etc.

15 Rue Caumartin, Paris, June 25, 1889.

Mr. Editor: The *Avenir Medical* in a recent number gives the following *resumé* of Jaccoud's *treatment of typhoid fever* in the wards of La Pitie.

1st. In order to maintain the strength of the patient, and to secure an abundant diuresis, he gives from one to two litres of milk daily, supplemented, when necessary, by *bouillon* and red wine.

2nd. In pronounced adynamic cases, he administers from four to eight ounces of brandy, in every twenty-four hours, together with four grammes (about ʒj) of the extract of quinine, and six grammes (about ʒjss) of acetate of ammonia.

3rd. As a means of reducing the temperature, he sponges the entire body with a mixture of cold water and aromatic vinegar four times daily for a temperature of C, 39° (F. 102.2°); six times for a temperature of C, 39.50° (F. 103°); and eight times daily for a temperature of C, 40° (F. 104°).

4th. When pulmonary complications present themselves, he applies from thirty to forty dry cups upon the inferior extremities.

5th. As accessory medicines he uses salicylic acid, quinine and digitalis—the first two as antipyretics, and the last, named as a cardiac stimulant.

While there can be no question of the correctness of the general plan of treatment employed by Jaccoud, the *following commentaries* respecting its practical details suggest themselves to my mind.

In view of the increased destruction of tissue due to the febrile process, and of the tendency to debility which char-

acterizes the disease, two litres of milk do not furnish sufficient nourishment to meet the requirements of the system, while *bouillon*, as made in this country, is positively inert, and red wine, by coagulating the milk administered, really serves to diminish the food supply, and to indirectly increase the danger of the patient.

The stimulants which Jaccoud employs in pronounced adynamic cases, are indicated as a matter of course; but they amount to nothing in the end, unless the increased demand for nourishment be also promptly and intelligently met in the premises. Unless the jaded horse be fed and strengthened, the whip and spur can hardly keep him up to the mark, however vigorously they may be applied.

I am convinced that great mistakes are made in the employment of stimulants in typhoid fever. They produce a semblance of vigor which is mistaken for real strength and thus beguile the physician into a neglect of that abundant and persistent nourishment without which the vital forces fail before the period for convalescence has been reached. They exhaust the system's susceptibility to them, so that it fails to respond to their influence when it is most needed—as is seen daily illustrated in *delirium tremens*. Of course I refer to the intemperate and injudicious use of stimulants, although, if I were called upon to choose between milk and brandy as a unique remedy in the treatment of typhoid fever, I should most assuredly decide in favor of the former. During the war stimulants were scarce and milk abundant, and yet, excellent results in the treatment of this disease were obtained by Confederate Surgeons. In those days the great remedy was turpentine, and it was found that Dr. Wood had made no mistake when he recommended it, for no remedy is capable of meeting more various indications and with so little detriment to the system.

Although cold lotions, salicylic acid and quinine unquestionably possess antipyretic properties, they do not compare in this regard with kairin, thallin, phenacetin, antipyrin and antifebrin, especially the two latter, and it is certainly an extraordinary circumstance that Jaccoud, while admit-

ting the importance of combatting pyrexia, should not employ them.

Taking *antifebrin* as the type of this class of remedies, experience has demonstrated that when administered in five grain doses up to thirty grains daily—i. e. at intervals of six hours, the temperature can be kept reduced several degrees, without danger to the patient. In a word, it reduces the temperature more promptly, decidedly and permanently than any other known remedy; and, being likewise both hypnotic and sedative in its influence upon the nervous system, it is especially indicated in typhoid fever. It is true that when given in larger doses than those just mentioned, it produces cyanosis and collapse, but that circumstance is no argument against its intrinsic value as an antipyretic, and its utility as a remedy when properly prescribed.

Antipyrin is scarcely inferior to it as an antipyretic, and when given in an acceptable form to the stomach is, in my judgment, entirely free from danger. The following is the formula which I have found most valuable:

℞. Antipyrine.....ʒiij
Alcohol.....fʒss
Syrup of raspberries.....fʒijss
Distilled water.....ad fʒij

M. S. One tablespoonful in a wineglass of water every second or third hour.

Nor are cold baths included in Jaccoud's therapeutical *repertoire*, notwithstanding their incontestable utility in certain cases of enteric fever. It is true that although incomparably the most potent of antipyretic agents, great judgment is required in their employment, inasmuch as they frequently overdo their work, and induce congestion or collapse—especially the latter, when the heart is weak or the system feeble. Even the changes of posture, manipulations, etc., incident to their administration may prove sources of danger to the patient.

The testimony in support of the therapeutical *value of cold baths* in this connection is overwhelming. Thus, the statistics of the Red Cross Hospital at Lyons, covering a period of ten years and carefully collected by Bouveret, show that

from 1866 to 1872, under a treatment by drugs exclusively, the death rate was 26.2; from 1873 to 1881, under a treatment in which cold baths entered to a considerable extent, the death rate was 16.5; and from 1883 to 1886, under a treatment of which cold baths constituted the principal therapeutical factor, the mortality was reduced to 7.3 per cent. Of course, the patients treated during the latter period had the benefit of all the potent antipyretic agents, which had then been discovered, but which were unknown previously. Leibermeister after having tabulated several hundred cases in the Hospital at Basle, gives as the result of his experience that cold water treatment, supplemented by the employment of other antipyretics, reduced the rate of mortality from 26 per cent. to 8.8 per cent. The records of the German Hospital show a death rate under the *old plan* of treatment, of 25.8 per cent., and under the *new*—that is, the use of antipyretics, with cold water as the chief of them—of a mortality of 8.9 per cent.

And, yet, in the face of these incontestable facts the antipyretic treatment of typhoid fever in its entiety is still vigorously opposed. The Academie de Medicine of Paris, has recently pronounced against it. In a discussion of the subject which took place in the Medical Society of London in 1884, Dr. Bristowe, supported by a number of his colleagues, joined issue with its advocates, alleging that it is based upon a pathological fallacy, inasmuch as pyrexia *per se* is neither an indication of danger, nor a cause of disaster, in typhoid fever.

Unvaricht and Nanuga have likewise attacked this plan of treatment with great vigor, or rather, the pathological grounds upon which it is based. They instance the clinical history of relapsing fever, rheumatism, typhus, etc., to prove the innocuousness of an elevated temperature, and to show that it does not induce the organic changes in the cardiac muscles, and the gland cells of the larger organs, which are attributed to it in the disease in question, but that they result from the progress of the infectious process itself. And in order to demonstrate that pyrexia neither measures nor causes the danger against which antipyretics are invoked,

they point to what are known as "walking typhoids," in which the multiplication of the bacilli, or, in other words, the consummation of the "infectious process," is accomplished without the development of febrile reaction, and the luckless patient finds himself *in articulo mortis* while pursuing his usual avocations, and before he has had even a suspicion of danger and scarcely a consciousness of illness of any description.

These arguments are plausible, but they lapse to nothingness in the presence of the *facts* supplied by the statistics of Bouveret, Liebermeister, Braud, Ziemssen, Liebermann, and others, and antithermic medication may be regarded as preeminently indicated in the treatment of enteric fever.

Again, if the statement of the *Avenir Medical* is correct, Jaccoud rejects likewise the use of *antiseptics in typhoid fever*. At the present moment the sentiment of the profession decidedly favors the employment of this class of remedies in the treatment of typhoid fever Carbolic acid, which was first recommended by Heiner in 1873, still plays an important *rôle* in this regard. Its value as a remedy has been testified to by Pichaler, Desplats, Vulpian and many others; but the most convincing proof of its utility has been furnished by Dr. Sidney Grimshaw in an article contributed to *The Lancet* in June, 1888. He reports that in one hundred and sixteen typical cases of typhoid fever, he employed carbolic acid successfully, save in a single instance. The following is the formula in which he combined it for administration:

℞. Carbolic acid (Calvert's extra pure).....gtts. xij
Tincture of iodine. .....gtts. xvj
Tincture of orange peel ....f ℥s
Simple syrup..... ....f ℥iij
Distilled water..... ..... q. s.....f ℥viij

M. S. Two tablespoonfuls every fourth hour for the first fortnight and then three times daily during continuance of the fever.

In certain cases he added diluted nitro-muriatic acid, with decided advantage. He thinks this acid treatment especially indicated when diarrhœa exists—the stools

promptly assuming consistency and becoming less frequent under its influence.

He ascribes the good results obtained by the carbolic acid mixture to the influence of that drug in arresting the growth and development of the typhoid bacilli, and to its curative action upon the characteristic intestinal ulcers.

Similar testimony in regard to the efficacy of carbolic acid in typhoid fever has been borne by other reliable physicians, and it has consequently assumed a commanding position as a curative agent in this disease.

Dr. Huchard of this city recommends the *salicylate of magnesia* as an antiseptic in typhoid fever. According to him, both the pulse and temperature rapidly improve under its administration; while the debility, the foul smell of the mouth, the peculiar odor of the fæces, and the tympanites disappear with astonishing rapidity and certainty. It may be given with impunity in very large doses, the existence of diarrhœa being no contra-indication to its administration, as even in doses of 150 grains daily, it produces no appreciable laxative effect. And, yet, in the face of all of this testimony to the efficacy of antiseptics in typhoid fever, Jaccoud attempts no disinfection of the bowels in his treatment of this disease, but leaves the destruction of the bacilli, and the cure of the ulcers, to the *vis medicatrix naturæ* of an imperfectly nourished system. It is true that salicylic acid is among his "accessory medicines," but it is used to meet a different indication, and so sparingly as to exert no influence as a disinfectant.

Jaccoud, it seems, still adheres to digitalis as a cardiac stimulant, whereas it has been demonstrated that when *caffeine in combination with benzoate of sodium*, is injected subcutaneously, it excites the heart even more decidedly than either, and, at the same time, acts as a diuretic, without being in the least degree dangerous. It will be remembered that, some months since, when the Emperor of Brazil seemed to be moribund from heart failure, induced by diabetes, Charcot succeeded in saving his life by a timely hypodermic injection of caffeine and benzoate of sodium, and the French journals have since teemed with instances in which

especially fortunate results were obtained in conditions of collapse occurring in typhoid fever. The liquid employed in this regard is a 25 per cent. solution of caffeine, with an equal quantity of benzoate of sodium to perfect the solution and to render its introduction less painful, an entire syringe full being injected.

The *Avenir Medical* makes no mention of *Jaccoud's method of arresting diarrhœa and of relieving constipation*, which is rather a singular circumstance in view of the frequency and importance of these symptoms. I confess to a mortal dread of diarrhœa in typhoid fever, not because of its essential significance, but on account of the intestinal hemorrhage of which it is so often the precursor. I am in the habit of combatting it by rectal injections of twenty-five drops of tincture of opium, in a small quantity of mucilage, to which a teaspoonful of camphor water is added if there is tenesmus, and by the administration of the salicylate of bismuth in chalk mixture every second or third hour. At the same time, milk, with burnt brandy, is alone permitted as food. The French physicians treat constipation by the daily administration of a purgative, in utter disregard of the danger thereby incurred of inducing intestinal perforation or peritonitis—thus conspiring with the malady to ensure its fatal termination. For one, I should as soon think of practising upon a typhoid fever patient with a revolver as of giving him a purgative after the fifth day of his illness. It is far better to let the bowels alone, or, if the demand for interference becomes imperative, to inject a small quantity of glycerine into the rectum or to employ a gluten suppository. Milk should be peptonized or strong animal broths substituted for it, under such circumstances.

There is a plan of treatment much in vogue here which I am happy to see is not practised by Jaccoud, since it is scarcely less dangerous than the liberal use of purgatives. I refer to the disinfection of the intestinal tract by means of copious injections of carbolized water. I have never seen such injections tried save in a single instance, but that was enough to satisfy me with them for a life time, for they resulted in the development of an uncontrollable diarrhœa, fol-

lowed by a hæmorrhage which proved rapidly fatal, although every possible remedy, including transfusion, was employed to prevent the result. The consultant in the case professed to be a *special st* in the treatment of typhoid, and the sequel proved that he had only discovered a more certain plan of compassing the death of his patient.

This *critique* upon the faults, positive and negative, of Jaccoud's method of treating typhoid fever, as presented by the *Avenir Medical*, has occupied so much space, as to preclude a reference to other matters of interest which are occupying the attention of the medical world of Paris, and, with your permission, I will defer the consideration of them until another occasion.

I am, very truly yours, &c.,

EDWARD WARREN-BEY, M. D., C. M., LL. D.

Country Cogitations on "So-called Specifics" of the Patent Medicine Man.

Mr. Editor—The old axiom "Tolle causam cessat affectus" is patent to all, but the ruling cause is not unfrequently obscured by too hastily agreeing to the conclusion of some over zealous worker who "sees in his imagination abortives which often turn out to be mere *muscæ volitantes*, instead of ever reliable antidotes to disease. Disease is as much a law of nature as health; an equilibrium must be preserved all through the scale of life and death. People must die for others to be born; the old oak must yield its place to the sturdy pine, and it in turn to other matter. Otherwise it would have been necessary for our much talked of ancestor, Adam, to have eaten of the tree of "everlasting life."

Chemistry has done much and is still making giant strides in removing the difficulties in the way of the adjustment of medicines in disease. But therapeutics is getting too much under the dictatorship of theoretical and avaricious pharmacists—after the manner of supposing a ready-made shoe to fit "because a foot is a foot." But nature has not made any two people alike any more than the leaves of any tree.

The sentiment seems to be at this day that the medical standard of education must be raised—that a doctor must be an educated man. Doubtless the last decade or two has

brought into the ranks unworthy men; still the cause of this appeal comes from over-crowded ranks quite as much as from fault of material. The equilibrium is lost.

If there is any profession which should be required to include in its curriculum all the branches of nature, it is that of medicine, because the doctor must be her student and conversant with her works. When we look out upon her field, we are struck with contrasts. We see them in matter and mind. The great world is held together by them, and is worked by such.

Of late much has been written about micro-organisms—pathogenic vitality—as the cause of disease in almost every form. Nature's "armamentarium" of workigg forces is very small, to wit, Carbon, Hydrogen, Oxygen, and Nitrogen and combinations; yet her power of conservation, correlation, and economy is great beyond calculation, and she changes without seeming to change, and beyond our comprehension. Take away man's mind, and he is identical in composition with other matter—only a little refined dust with different arranged atoms perhaps.

Health is a certain arrangement of atoms of matter, and disease, a disarrangement of the same. Nothing is ever lost in nature—every atom is put to account. External causes far beyond our comprehension, are constantly at work producing health and disease. Disease, the effect of the loss of equilibrium, catches a hold in the "soil" best adapted to the prevailing cause, by weakness or otherwise, and a process is set up to throw it off; and in this process when we see with the microscope forms of vegetable life, we are induced to think they as often mean nothing as something, so far as improvement in treatment is concerned.

Are we looking for specifics with which to kill off disease? Abort it in the start. Suppose we do find a remedy which neutralizes or assists nature in some way, shall we call it a specific for the next case, and expect it to work as in the first? By no means. Nature's seeming homogeniety, is a homogeneous heterogeniety, so to speak. For instance: Every tree seems to possess leaves peculiar to itself, and similar on each tree—to our eyes exactly alike; and yet there are no two leaves on any tree alike in all respects. So with diseases—though they bear the same name, and seem alike, yet in different persons the same affection will require different treatment, for they are not alike in every way

If you can find two human beings alike in every respect,

then I will yield the point of abortive medicine *with specifics.* I would rather fight Mr. Darwin's sentiment, or even Mr. Ingersoll's than to undertake to cure diseases with specifics, or on the principle that there is a homogeniety in persons and in some diseases in different persons unchangeable by age, sex, idiosyncrasy, surroundings, climate, etc., such as will justify me to put up a prescription for a patient without first fitting the same by close examination to the peculiar case. Every case is peculiar to itself; there is no other case like it in the world.

Now, man is hard to kill; every doctor knows that, and well he is, or there would be fewer rich men in the world, like those who know so well how to make "*Safe Cure Medicines*" *for all diseases.* COUNTRAMAN.

Correction in Report of Medical Examining Board of Virginia.

CHARLOTTESVILLE, VA., July 1st, 1889.

To the Editor Va. Medical Monthly:

In the report of the "*Proceedings of the Medical Examining Board of Virginia*" for the session held in the city of Richmond in April, there is, on page 10, 9th line from bottom, the following: "In the article referred to, the *Southern Clinic* belabors the Board for licensing two *colored* physicians," etc.

The editor of the *Clinic* is justly offended at this criticism, which unintentionally puts him in a totally different light from what was intended.

The report should say "* * * * * belabors the Board for licensing two *colored* physicians *who fell below the required standard.*"

Will you kindly publish this as a correction of the said report?

HUGH T. NELSON, M. D.,
President of Board.

The Mellier Drug Co. sell Obstetrical Satchels, fair or black leather, 17 inch, $4.25; 16 inch, $4.00; 14 inch, $3.50; 12 inch, $3.00.

Original Translations.

From the French. By R. M. SLAUGHTER, M. D., Theological Seminary, Va.

New Diuretic in Diseases of the Heart—Sugar of Milk.

At the meeting of the Academy of Medicine of Paris, on the 11th of June last, Prof. G. Sée, read a paper of practical interest upon the action of sugar of milk as a diuretic. The following is a summary of the communication:

While the great value of milk both as a complete aliment and diuretic has long been recognized, to obtain sufficient diuretic action in cardiac dropsies, the quantity to be taken is so large that in cases of weak digestive powers, it is not well borne. Moreover, glycosuria may be produced in addition to diuresis.

Repeated experiments by himself and Dr. Bucquoz determined that milk owed its diuretic action to the contained lactose or milk-sugar found in all milks. Lactose crystallizes easily, and is soluble in six parts of cold water and in two and a half of hot.

It is declared by Dr. Sée to be the most powerful, certain and safe of all known diuretics, and causes neither glycosuria nor azoturia, as large quantities of milk may do.

Thirty-five patients suffering with cardiac dropsy were treated with milk-sugar and carefully observed. Its diuretic action was produced in all patients, no matter what the variety of heart-trouble, this action being only less constant in arterio-sclerosis. To these patients there was given 100 grammes of lactose dissolved in 2 quarts of water. As a result, polyuria followed greater in amount than would be produced by 4 or 5 quarts of milk or by any of the diuretic drugs. The diuresis rapidly increased to $2\frac{1}{2}$ quarts of urine on the following day, and generally by the third day to $3\frac{1}{2}$ and even $4\frac{1}{2}$ quarts. It then remained stationary or diminished to $2\frac{1}{2}$ quarts daily for several days. In this time the dropsy disappeared almost entirely, and the blood became dehydrated, and for this reason the diuresis is not so great as in the beginning. After some days, the remedy may be repeated. It is generally well borne, and may be given for 8 or 10 days, and after an interval of several days be again given.

If the solution is disagreeable to take, a little spirit, or some aromatic, may be added. During its administration,

all other drinks should be greatly reduced in quantity or suppressed.

Lactose has the advantage of permitting the patient to take all kinds of food, even the most nutritious, as is so often indispensable to sustain the failing forces of subjects with cardiac disease.

The diuretic action of lactose is due to its action upon the secretory elements of the kidney. It does not act by increasing blood pressure, for pulse and tension are not changed. It does act as the alkaline salts by virtue of their osmotic power. The addition of 2 grammes of potash to each quart of lactose solution does not increase its diuretic action. It is physiologically a renal diuretic. Lactose is a more powerful, certain and efficacious diuretic than the cardio-vascular tonics—digitalis, convallaria and strophanthus. Lactose is, then, *the diuretic* in affections of the heart at the asystolic period, the true curative remedy for dropsies of cardiac origin, even for those which resist all other diuretics.

On the other hand, lactose is powerless against the dyspnœa, which is a serious complication of the asystolic period, but this may be obviated by the addition of potassium iodide. By the association of potassium iodide and lactose all indications are met.

While the action of lactose is so certain in dropsies of purely cardiac origin, in those of renal origin, it is doubtful or *nil*. In cardiac dropsies associated with diseased kidneys in which albumen is found in quantities of from 10 to 14 grains per quart, lactose is wanting in diuretic power, and it is only when albumen is not present in the urine, or if so, in very small quantity, that its action is favorable.

The degree of alteration of the kidneys may be measured by the diuretic action of lactose.

A diarrhœa naturally diminishes also the diuretic action of lactose, as do likewise profuse sweats.—*La Tribune Med.*, June 20, 1889.

Treatment of Endometritis.

At the same meeting of the Academy of Medicine, Dr. Dumontpallier described a method of treatment of chronic endometritis which he has successfully employed in the gynæcological clinic at the Hotel-Dieu. This disease, he remarked, was the most common one that he had to treat in his clinic. The following is his method of treatment:

The vagina is first washed out with a carbolic or bichloride solution. Then the depth of the uterine cavity is next measured, and a crayon of zinc chloride paste exactly cor-

responding in length to the depth of the cavity introduced. The upper extremity of the crayon should just touch the fundus, and its lower extremity should not be outside the external os. The crayon, which should be a perfectly homogeneous mass, is then left in the uterine cavity. Next the vagina is again washed out to remove all the caustic, and an antiseptic tampon introduced to keep in the crayon. The pain produced must be quieted with hypodermics of morphia. The pain takes the form of lumbar colics, but does not last more than 24 hours. The tampon sometimes causes retention of urine, and then should be removed.

In about 36 hours pus or muco-pus begins to be discharged, but never blood, and there are colicky pains. In from 4 to 13 days the eschar is thrown off in the form of a matrix and composed of the lining of the womb. The cure may be considered as definite two days after this elimination.

To prevent possible atresia, it is better to catheterize the neck about three weeks after the cauterization. Of 100 cases so treated, a cure was obtained in 96, and 4 of the patients afterwards became pregnant. In the other 4 cases slight complications occurred on account of a bad introduction of the crayon, or from the patients leaving their beds too soon.

The treatment gave equally good results in the mucopurulent, pyo-hæmorrhagic and hæmorrhagic forms of the disease.—*Le Praticien*, June 17, 1889.

"The Elixir of Life."

At the meeting of the Society of Biology on the 1st of June last, its President, the celebrated Dr. Brown-Séquard, announced a remarkable discovery. He began by speaking of the effect of the nervous system upon glands, and reciprocally, the effect of glands upon the nervous system, independent of their function of removing from the blood products to be excreted, for they may at the same time secrete substances which exert a marked influence over the nervous system and circulation. He had several times tried to graft on one animal parts of another animal containing the testicles, and in one case had succeeded. A feeble old dog, upon which he succeeded in grafting in the thigh a piece of testicle, regained his vigor. Then changing his method of procedure, he began trying hypodermic injections of blood from the testicle, or of a liquid obtained from the triturations of the testicle, or of seminal vesicles. These injections were first tried upon animals; and no harm

resulting, he then tried upon his own person injections of a liquid composed of fluid from the triturated testicle and the blood of the spermatic veins of dogs or guinea pigs. These injections caused no other inconvenience than local pain and redness. The general results were, however, remarkable. Muscular power became greatly increased; intestinal atony disappeared, defecation becoming normal and easy, and the bladder recovered its contractile power. The brain, also, recovered its vigor, and the other systems participated in this remarkable return of youth. Dr. Brown-Séquard thinks that this action is chiefly due to the blood of the spermatic vein, for injections of semen or of filtered spermatic liquid cause only abscesses.

At a meeting of the Society, on 15th of June, the doctor again took up the subject, reiterating the wonderful changes the injections had caused in his own person, renewing his physical and mental faculties. He especially called attention to the fact of the permanency of the effects of the injections. It had been 11 days since he took his last, and its good effects still remained. The effects are evidently dynamic and not organic, for one would not conceive what organic modification could be effect in the spinal centers of the sphincters, for example. At the next meeting he intended to speak of this dynamic influence. Castrated women, he believed, were veritable female eunuchs. It would be interesting to try the effects of injections of ovarian liquid upon females, and he would like for the lady physicians to try its effects on their own persons or on other women. He appealed to the scientific press to help him solve this problem.—*Le Progrès Méd.*, June, 8 and 22, 1889.

Formula for an Artificial Hunyadi-Janos Water. (*Gazz. Med. Lombardia*, 1889, No. 14.

R.	Sulphate of potash	0.5 parts
	Chloride of soda	14. "
	Bicarbonate of soda	52.9 "
	Sulphate of soda, (dried)	180. "
	Sulphate of lime, (precipitated)	15. "
	Sulphate of magnesia	24.5 "
	Sulphate of iron, (dried)	2. "

Dissolve in 10 litres of water.

To prepare an ordinary dose, put a tablespoonful of the solution in a half-pint bottle, fill the bottle half full of water, shake, and fill up with carbonated water.—*Le Progrès Med.*, June 8, 1889.

Proceedings of Societies, Boards, etc

MEDICAL SOCIETY OF THE STATE OF WEST VIRGINIA.

The Twenty-second Annual Session of this Society was called to order at 8:30 P. M., at White Sulphur Springs, Greenbrier county, West Virginia, by the President, Dr. L. D. Wilson, of Wheeling. In the absence of the Secretary, Dr. J. L. Fullerton, of Charleston, on account of sickness, Dr. D. Mayer, of Charleston, served as Secretary *pro tem.*

After prayer by the Methodist Chaplain at the Springs, the Address of Welcome, by Dr. T. R. Evans, of Charleston, the calling of the roll, the introduction of some visiting physicians, etc., the President, Dr. Wilson, called Vice-President, Dr. Thomas R. Evans, to the chair, and proceeded to deliver the *President's Address.*

The Address began with a running history of the organization, and references to geographical and other conditions which had retarded its full development as to numbers —it having only 155 members on adjournment of the twenty-first annual session. But increasing facilities for travelling, etc., make a brighter prospect. He recommended rescinding the resolution adopted in 1871, expelling all members two years in arrears as to their annual dues. During the same year, a resolution was adopted condemning the practice of bidding for services let out by the State to the highest bidder. The error lies in the statute of the State. While the Society should strongly urge the repeal of such a law, yet so long as it is a State law, the Society should not debar worthy physicians from membership because they accept positions as physicians to jails, penitentiary, almshouses, etc. Hence he advocates rescinding the resolution of the Society of 1871, bearing on this subject, until such time as the laws of the State may be changed. Prospects are brightening as to securing medical legislation; popular sentiment is beginning now to demand protection. Thus Florida last winter called an extra session of its Legislature simply to create a State Board of Health, etc. Many States are creating their State Boards of Medical Examiners. In Virginia, North Carolina, and Alabama, the law is as it should be in giving the privilege to State Societies to select their Boards, But the first step to be taken by the Society is to secure for itself a charter. Dr. Wilson then proceeded in a most forcible manner to show the great

advantages of demanding of every medical practitioner a thorough education. It is want of education on the part of so many now in the profession, that has brought the title of doctor of medicine to so low a level, which has allowed opportunity for the shrewd quack and charlatan to pass their brass for gold upon the people. Education of all who enter the profession will again re-establish the doctor upon the high platform of recognized ability, and then strides will be made in scientific advancement—resulting all the time in good to the people. The thorough organization of the profession of the State is essential to secure such an advance in its improvement. "It matters not in what light this subject is viewed—the highest considerations of duty, of usefulness and of success, urge us to build the superstructure of our professional education on a carefully prepared foundation." The want of appreciation of scientific facts causes the loss to medicine of many important truths. It may be indifference or it may be ignorance. Thus the discovery of the anæsthetic effect of ether by Long did not seem to be appreciated by him as a great scientific advance until others had claimed it as a boon to humanity. Want of thorough education also leads some to adopt certain individuals as authority, and thus to follow routine practices, instead of depending upon independent study and reasoning. Another tendency growing out of this conscious lack of proper education, is the disposition, manifested in certain localities, to assume to be centres of medical knowledge, and to claim corresponding homage from the profession at large. But we should never forget that the book of nature is open to all.

While medical art has achieved much, it is to Sanitary Science that we must look for the greatest results. Less than a hundred years ago, Jenner brought to light the value of vaccination in the prevention of small-pox. Pasteur has recently rendered rabies a preventable disease. Lister has saved thousands upon thousands already by his doctrines about antisepsis. Modern bacteriology gives cheering promise of mastery over the development and spread of a most important class of diseases. He concluded his well-studied and well-worded address with an appeal to doctors to work on with pure intentions and industry—watching for the development of other truths as a development from their studies and patient labors.

After some routine business, the Society adjourned until 10 A. M. Thursday.

Second Day—*Morning.*—After the usual form of opening, under call for reports from the Committees on State Medicine, Dr. D. Mayer, of Charleston, of the Fourth District, read a paper extolling the virtues of Arsenic Springs Water, etc.

On nomination at different times during the session, the following gentlemen who were present, either as fraternal delegates from their respective State Societies or as visitors, were elected Honorary Members of the Medical Society of the State of West Virginia. Drs. Hunter McGuire and Landon B. Edwards, of Richmond, Va., Geo. B. McCorkle, of Covington, Va., J. G. Wiltshire and S. V. Hoopman, of Baltimore, Md., and J. M. Richmond, of St. Joseph, Mo.

Uuder call for Voluntary Papers, Dr. S. V. Hoopman, of Baltimore, Md., read a lengthy paper on the

Pathology of Fever.

[We regret the failure to take notes of this paper, and that the author did not comply with request to furnish us with a synopsis.—Ed.]

Dr. J. H. Branham, of Baltimore, Md., said that the common occurrence of febrile symptoms had naturally caused much speculation as to the causation of fevers. For a long time Traube's theory was accepted by nearly every one. He believed that the formation of heat was nearly constant, but heat dissipation was arrested at times, and thus fever was caused. This was explained by the cold stage when the arterioles going to the skin were contracted, and thus, it was argued, the elevation of temperature was produced. Traube's theory was upset by experiments made by Senator and others who found that, in the lower animals, heat dissipation was increased during fever.

To give the modern theory of fever, it is necessary to consider the physiological facts bearing on the subject. The vaso-motor system, which causes dilatation and contraction of the arterioles going to the skin and lungs, controls heat dissipation. This has centres in the brain and cord.

H. C. Wood's experiments proved that there are heat-producing centres in the brain.

These two systems must be closely associated, and it has been supposed that there is a mechanism which controls both to some extent. This has been called the thermo-taxic mechanism, and its derangement has been considered the principal cause of febrile phenomena.

Dr. Branham thinks the hydropathic treatment gives the

best results, especially in typhoid fever. The statistics on the subject are overwhelmingly in its favor.

Honorary Member, Dr. J. N. Upshur, of Richmond, Va., read a paper on

Reflex Bladder Troubles, especially in Women.

He spoke of the wide range of causes springing from the pelvic organs, and called attention to the fact that in childhood and old age, the vertical diameter of the bladder is the longest, and the transverse in middle life. The former fact was accounted for by the bagging of the bladder in old women after atrophy of the uterus, etc., at the menopause; and this condition—interfering with complete and satisfactory emptying of the viscus—gave room for residual urine, which becoming ammoniacal, becomes a source of irritation of the vesical mucous membrane. Thread worms, a too concentrated urine, eating too much sweets, etc., were cited as reflex causes of irritable bladder. He made the point that the most common cause of vesical irritation lies in *some affection* of the cervix uteri, because it is more highly endowed with nerves and consequently is more sensitive. He contrasted cases of vesical irritation produced by this cause and those strictly emotional, and pointed out the widely different treatment demanded in each class of cases. He condemned injections of an irritant character into the bladder, especially strong solutions of nitrate of silver. Criticised free stretching of the urethra, and thought it was generally done empirically, and, if beneficial, it was because of fissure, irritable ulcers, or some lesion of the neck of the bladder near the internal orifice of the urethra. He also reported an interesting case of vesical irritation in which the patient had passed her water *seventy* times in twenty-four hours. He thought she was the subject of ovarian dysmenorrhœa, and that the cause of her trouble was located in a diseased condition of left ovary, and, secondarily a lesion in the vesical nerve centre (junction of dorsal and lumbar regions) of the spinal cord. He spoke of the value of drainage by a self-retaining catheter, if it can be borne; and also of the treatment by artificial vesico-vaginal fistula, but he said the indication for the latter was an organic disease of the bladder, not a functional trouble.

Dr. Hunter McGuire, of Richmond, Va., opened the discussion of Dr. Upshur's paper. He said that he was glad that Dr. Upshur had selected the subject of functional bladder troubles in females. It was an interesting, common and important theme, and one about which there was compara-

tively little literature. There were few subjects in surgery which presented greater difficulties in treatment; and he always felt when a woman came into his office, or hospital, and began the history of some chronic bladder disorder, that he had to come down to patient and hard work if he expected to do her any good. The first thing he usually did, was to get Mr. Hugh Blair, an honest and very skilful chemist in Richmond, to examine the urine. If he reported the secretion normal, or nearly so, then the chances were that the disorder was functional, and not organic vesical disease.

In trying to find out where the irritation was located, by which reflex disorder of the bladder was provoked, the rectum was to be examined, or the patient questioned about that organ, and the existence of piles, fissure, or other troubles thus excluded. He had seen fissure of the anus produce severe and prolonged vesical irritation, which disappeared when the fissure was relieved. In his section of country, where malaria was common, he had seen that poison give rise to this condition, and the case relieved only when that poison was eliminated by proper remedies. He supposed the effect of malaria on the nervous system was the only explanation that could be given in its production of vesical irritability. You sometimes find it giving rise to functional disorder of the bladder, without serious disturbance of the organs of digestion and alterations in the character of the urine.

Vesical irritability was sometimes a pure neurosis, at least he could not always find any other explanation for its existence. Probably as our knowledge of pathology increases, these cases of neuroses of the bladder as well as of other organs, will become less and less frequent. Improvement in our knowledge of the pathological changes which take place in the female urethra, will surely lessen the number of neurotic cases; but, in truth, there are some cases of disorder of the bladder in women which can only be explained as neuroses. This is not to be wondered at when we remember the influence of the emotions on many of the organs of the body.

He was not sure, but he thought it was Abernethy, who, in describing the influence of fear on the secretion of urine, told the story of a woman crossing London Bridge to see a surgeon, to be tapped for dropsy. When half way over, there came the cry of "Mad Ox," and she looked back and saw the infuriated animal plunging over the bridge in her direc-

tion. She stepped into one of the niches of the bridge and began to "piddle, and piddled herself as lank and lean as a greyhound."

Some of you recall, possibly, the influence of a certain emotion which is felt on going into a battle. He had seen nearly a whole regiment break ranks and begin making water just before going into a fight. The hysterical urine of nervous women is another evidence of the influence of the nervous system on this secretion and its evacuation, and if kept up for some time, this kind of urine is very irritating to the bladder and urethra. Clear, limpid urine, free, or nearly free, from the natural solid constituents, is nearly as irritating as concentrated urine, heavily loaded with the salts of urine. The worst cases of so-called "strangury" that you will meet with are those in which the urine is clear and looks like spring-water.

Another source of functional vesical disorder in women is masturbation. It is not common, but cases of this sort do present themselves. This bad practice, if often indulged in, causes congestion of all the pelvic organs, and irritation about the meatus urinarius. It is a good plan in these cases to paint the labia pretty freely once or twice a week with Churchill's solution of iodine. This is one of the best remedies that he had ever tried for pluritus vulvæ, and had in his hands succeeded in relieving patients after many other remedies had failed.

He can probably illustrate some of the forms of functional disease of the bladder in women by giving briefly a few cases now under his care. He has found, as a rule, to which there are, of course, some exceptions, that when a woman has difficulty of retaining the urine, has to void it frequently, that it is painful to pass, is relieved when the bladder is empty; that if she holds it too long, spasm of the bladder comes on, and the water is involuntarily ejected in spurts—that the disorder is functional; but when there is great vesical tenesmus; pain and straining after the urine has all come away, as a rule there is some real disease of the bladder or urethra.

One of his cases was sent to him to have a stone removed from the bladder. She had been sounded, and the stone supposed to have been felt in the bladder. He found simple anteversion of the womb, which was relieved by a pessary and all vesical trouble disappeared.

Another case had been treated for two months for chronic cystitis by injection into the bladder and a variety of medi-

cines by the mouth. Four months ago, after a difficult labor, she gave birth to a child. She was slow in getting up, had fever and pelvic tenderness and pain. He found a large tumor behind the womb, which proved to be an abscess. When this was opened and drained, the bladder was relieved at once.

Another case of a woman, now in his hospital, who had pelvic inflammation following child-birth—right behind the uterus was a deposit of lymph, which had pulled the top of the womb backward, shortening the utero-sacral ligaments, and sent the cervix upward and forward, giving rise to intense vesical trouble. This variety of trouble is not infrequent, and is exceedingly difficult to relieve. If you see it early enough, give big doses of iodide of potassium—use hot water vaginal injections and Churchill's iodine freely two or three times a week, and at the same time keep the woman quiet—if you can, in bed, you will probably correct the displacement and relieve the bladder.

Another case of vesical disorder, which had lasted for fifteen years. The lady was forty-seven years old, and still menstruating as regularly as ever. She had constant, but not severe pain in her bladder, but at the monthly period this pain became attrocious, and she took morphine very freely to relieve it. He removed the left ovary and tube, finding upon the tube a neuromatous tumor scarcely as big as a boy's playing marble. The relief was complete, and the woman was sent home in a month entirely well.

He has by no means exhausted the subject, but he has said enough to show the great variety of causes for functional bladder troubles in females, and that any one who treats such cases will require all the skill and patience that he can command.

Second Day—*Afternoon*—Honorary member, Dr. J. Edwin Michael, of Baltimore, Md., presented a paper on *Two Laparotomies, with Comments*, which appears as Article V in this issue.

Dr. J. D. Myers, of Huntington, West Virginia, read a paper on the

Care of our Females from Birth to Maturity.

As soon as born, unless the child is *very* dirty, use simply water in which the whites of some eggs have been poured, which cleans the child and leaves the surface soft and pliable. He condemned the common use of soap unless it was absolutely necessary to get the surface clean, as soap is irri-

tant and hardens the skin. The child should sleep in a darkened room, and, unless the weather is severely cold, in a room without fire. He strongly urged the importance of vaccination—most assuredly before the third year—as he was convinced that it was not only preventive of small-pox, etc., but modified the severity of such diseases as scarlet fever. Mother's milk of course, is the best diet; but when artificial food is necessary, the "Lacto-Preparata," of Reed & Carnrick, of New York, is the best that he has ever used. The bent of Dr. Myers' paper was to impress again the great importance of hygiene and sanitary science in the care of the girl passing into maturity. While exercise and occupation should be enjoined, excesses of every description should be avoided. It was a well written essay, and one that might be beneficially distributed as a State Board of Health document among those who have the care of raising children—especially girls through their maiden life up to the period of their marriage. The language used by the Doctor was such as to make it pleasing reading by the people, while it would prove likewise instructive to them.

Dr. Thomas R. Evans, of Charleston, West Virginia, read a

Report of an Autopsy of a Case of Cancer of the Stomach without Pain, with Remarks.

A negro man, age 49, failing in health for several months, was in bed two months and a half before death, with nearly all the usual classical signs and symptoms of cancer of the stomach, *except pain*. Towards the last a tumor was discovered in the left side of the umbilical region which, when pressed upon, caused the patient to slightly flinch.

Autopsy revealed a scirrhous condition of pyloric orifice, and annular infiltration with the same cancerous material, extending several inches down the duodenum. The liver was normal with the exception that there were two hard and blackish spots on its surface. The left kidney was stained with the same pigment material, and the right kidney was atrophied. Both kidneys were scirrhous. The spleen was much congested. Such were the gross post-mortem appearances.

The man had been in the habit of using tobacco excessively, and was a moderate user of spirits, and often slept with tobacco in his mouth and during the day often swallowed the tobacco juice. He was also a very hasty eater.

Dr. Evans asked if the repeated effects of the irritant, tobacco, both in the form of swallowed spittle during smok-

ing; and as ambier (?) might not sometimes excite cancer in the delicate and complicated histological elements of the stomach, as it sometimes undoubtedly does on the lip and tongue; especially, when the stomach is often abnormally bare of epithelium from rapid eating? He is doubtful if cancer of the stomach is as uncommon in the negro in the United States as reported, especially since the habits of that race and their modes of life now conform so closely to those of the white man. He also doubts that both sexes are nearly equally affected with cancer of the stomach, as Dr. Welch's statistics would prove. He is inclined to think that men are more liable to the disease—especially because of their freer indulgence in tobacco and whiskey, which in certain cases may be predisposing or exciting causes. He does not know what *role*, if any, the tomato plays in cancer.

The tumor in the case he reported was in the *left* umbilical region, (which is the most frequent site of cancer of the pylorus) instead of to the right of the median line, as some authors state.

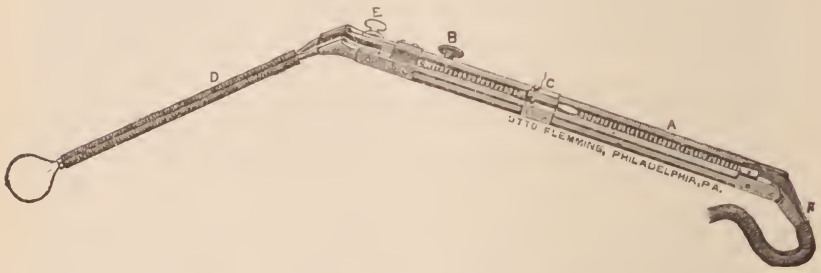
Nasal Obstruction—Partial or Complete—in its Relation to so-called Catarrh of the Nose, Ear, Throat or Chest—as also to Cough, Headache etc., etc.

Was the title of a paper read by invitation by Joseph A. White, A. M., M. D., Senior Surgeon to the Richmond (Va), Eye, Ear, Throat and Nose Infirmary. He pointed out the deleterious influence of nasal obstruction, even when only partial, because it necessitated occasional or continual *mouth breathing*. Air inspired by the mouth does not receive sufficient heat and moisture to enable it to perform its physiological functions as a blood purifier, on the one hand, and it is not freed from its impurities on the other. The nose is specially constructed to give heat and moisture to the inspired air; the buccal cavity, larynx, trachea, bronchi and lungs are not so constructed. Hence air inspired by the mouth, in making a vicarious demand on the mucous linings of these passages, lowers their temperature and abstracts their moisture without raising itself to its required standard, and congestion of these parts is the result. In this way laryngitis, and bronchitis may have their origin. At the same time the interference with the normal functions of the nose results in defective ventilation and drainage, its secretions become altered, and nasal catarrh develops.

The same cause brings about defective ventilation of the drum of the ear, and the resulting ear trouble is aggravated by the extension along the Eustachian tubes of the naso-

pharyngeal disease. All the different forms of nasal obstruction were given in detail with suggestions as to the best methods of treatment.

Dr. White considered it practically useless to treat the resulting catarrhal conditons without removing the causes and restoring perfect nasal respiration, and this he thought best accomplished by surgical procedures. He exhibited different instruments for relieving the various forms of obstruction and among them a ratchet snare of his own invention which can be used both as a hot or cold snare.



He also showed his method of examining the posterior nares with the aid of his self retaining palate retractor, which enables any physician to familiarize himself with this method of diagnosis. In speaking of *deflected septum*, sometimes a cause of nasal obstruction, he deprecated the tendency of some specialists to attack the septum with burrs, drills, saws or punches whenever there was the slightest deviation from a normal condition. He advocates leaving the septum alone and not subjecting the nose to so severe a traumatism whenever nasal ventilation and drainage can be restored without such operations, and in most cases of deflected septum this can be done by shrinkage or removal of the accompanying hypertrophy of the turbinated tissues.

The Record of Five Cases of Hemiplegia,

Was the title of a paper presented by Dr. W. W. Tompkins, of Charleston , W. Va. He reports five cases of hemiplegia that were treated by himself. Of this number, two died, two made perfect recoveries and one is now convalescing and under treatment. The ages of the cases were from 26 years—the youngest—to 58 years—the oldest. Four of the cases were men, one a female. Four were whites—all Americans; one a negro. All were unmarried but one—a man of fifty years of age, the father of twelve children. Season seems

to have had nothing specially to do with the attacks. They were most frequent in the warm months, but no two occurred in the same month. All were sober and industrious except one, who was a hard and constant drinker. Four of them were without education, the other one was merely able to read and write.

There was no premonition of attack in any of the five cases. All the cases were sudden and without warning. No gastric trouble, headache or comfusion of ideas seem to have preceded the attack. All the attacks occurred in the day—none at night. Only one of the cases was engaged at work at the time the seizure occurred. Those having the hemiplegia on the right side died; those affected on the left got well. Aphasia existed in all the cases. In some it was marked and constant; in the others light and transitory. The paralysis was of motion only; in no case was sensation lost. Those cases that died never recovered speech. In those cases that recovered speech, it returned before the power of motion. The leg was the first to receive motion in each case—the arm being last. The taste was markedly affected in some cases after recovery—notably in one man who had used tobacco for thirty years. Since his recovery, he cannot be induced to touch it. One of the cases was specific in origin—the only one in the series not benefited by treatment. A second attack occurred in two of the cases, one of which recovered, one died. The duration of the disease was from three months to twenty-six months.

Some Observations on the Care of Children's Eyes

Was the title of a paper by Honorary Member Dr. James G. Wiltshire, of Baltimore, Md.

The fact that from 30 to 50 per cent. of the inmates of our blind asylums, and 300,000 blind of Europe, owe their misfortunes to neglected eye diseases incident to child-birth and childhood, has prompted this study.

Ophthalmia neonatorum is a purulent conjunctivitis of the new-born child; beginning on the third day as a rule. It is due to a morbific pathogenetic agent in the birth-canal. The treatment should consist of preventive and curative measures. To meet the former, such a germicide should be instilled into the eyes of the new-born infant immediately upon delivery (Cohen). Boracic acid promises much as a prophylactic agent; should the disease gain headway in spite of one's preventive efforts, cleanliness and a solution of nitrate of silver can be relied upon.

Simple Catarrhal Conjunctivitis is the most common of all

the diseases of ophthalmology. Its point of departure is the palpebral layer of the conjunctiva, extending gradually over the whole sac. Though simple, and innocent *per se*, if we accept the bacteriological origin of conjunctivitis, we must admit that it may develop into the purulent form. All are equally exposed to the germs of catarrhal ophthalmia, but in this, like all other diseases that flesh is heir to, its occurrence depends upon the power of resistance resident in the organ threatened.

One conjunctiva may furnish a proper soil for the culture and development of the bacilli and inflammation of conjunctiva, and another successfully resist their invasion. Accommodation strain, inflammation of the lachrymal apparatus, marginal blepharitis, a long life in impure air, will invite the disease.

Considering the liability of neglected simple conjunctivitis to become granular lids, it is important to recognize and treat the disease at once; however, if it has gone into that stage when the papillæ of the conjunctiva are hypertrophied, giving the appearance of "sago-like grains" of trachoma, it is difficult to differentiate one from the other; having at last to appeal to treatment for a decision.

Boracic acid gives the best results. Alum and sulphate of zinc are of oral substitutes..

Mr. Higgins and others advise cocaine and atropia in the treatment of simple conjunctivitis, whilst others do not value them so highly. They are useful in relieving the irritation, and contracting the engorged vessels that belong to the disease; but if their use is prolonged, one can see how they may inhibit the vaso-motors that they at first stimulated; and give rise to a more active inflammation than existed at first, finally going on to the development of granular lids.

If error of refraction is the source of the disease, correct with the proper glass.

Should blepharitis marginalis stand in the way of recovery, remove the crusts and touch the raw surface with a crayon of nitrate of silver. An ointment of yellow oxide of mercury has a soothing and often curative effect.

If the cause is traceable to stenosis of the lachrymal apparatus, slit up the canaliculus, and pass a probe through the duct every third day until the tears flow freely into the nose.

Myopia Produced by Accommodation Strain.—The literature on this subject is full of convincing proof that accommoda-

tion strain incident to study in our public schools is a most potent source of myopia. It is true the various errors of refraction are found in the adult whose vocation directs him into other paths than those that lead to literary pursuits; and, in children, when they first enter the educational department of our public schools, the oculists find many hypermetropes; but as the amount of close work increases the converse obtains.

It is still more alarming when we reflect that it is due to defective illumination and sittings in our public school-rooms. The light that should fall over the child's shoulder comes to him from a lateral or front direction; the desks are too low, or the seats too high—all conspiring to make the child indulge a natural inclination to stoop over his work, thus bringing the object too close for finite vision, necessitating an extraordinary effort of accommodation to adjust the dioptrics of the eye so as to cause these now highly diverging rays to meet on the yellow spot. This combined effort of accommodation and convergence will insure acute vision for a while, but in the course of time headache and other asthenopic symptoms announce themselves; at which juncture nature, in her effort to neutralize this apparent refractive change, causes the extrinsic muscles of the eye to compress the ball, which force, coupled with the congestion of the inner tunics, and the hypersecretion of the intraocular fluids that the stooping attitude of the child has invited, weakens and lengthens all the coats, even to the production of a posterior staphyloma.

What is to be done to correct this evil?

Whilst the system is a public trust, yet we cannot anchor our hope in legislation. The mischief can be corrected only by individual effort. To meet that end, Dr. Wiltshire suggests that a proper physician be appointed by the local school boards to test the vision of the children twice during the session, and supervise the hygiene of the school-rooms.

During the Night's Session, Dr. William C. Dabney, of the University of Virginia, but for this season, Resident Physician at White Sulphur Springs, read a paper of practical merit, which was expected in time for this number, but the paper has not yet reached this office.

During the morning of the Third Day, the members of the Society and its visitors and the wives of the doctors were the guests of the White Sulphur Springs Company in the form of carriage rides around the property—extending some miles along the bases of the mountain range that sur-

rounds this wonderfully and grandly attractive health and pleasure resort.

During the *Afternoon Session*, the following officers were elected for the ensuing term: Dr. S. H. Austin, of Lewisburg, *President;* Drs. Thomas R. Evans, of Charleston, J. D. Myers, of Huntington, and V. R. Moss, of Barbersville, *Vice-Presidents;* Dr. J. L. Fullerton, of Charleston, Secretary; Dr. J. A. Campbell, of Wheeling, Treasurer; Dr. G. McDonald, of Union, Chairman of Committee of Censors; Dr. A. F. Stifel, of Wheeling, W. Va., Chairman of Local Committee of Arrangements for Session of 1890, in the city of Wheeling. Drs. D. Mayer, and T. R. Evans—both of Charleston—were appointed Fraternal Delegates to the Session of the Medical Society of Virginia, in the city of Roanoke, Va., September 3rd 1889.

After some routine work and several parting remarks by different members and visitors, the Session adjourned *sine die.*

Analyses, Selections, etc.

Plants and their Alkaloids.—Especially Coca.

In an important paper recently read at the Academy of Medicine by that distinguished Professor, Dr. Germain See, he stated that in therapeutics, alkaloids and the plants from which they are derived, should not be confounded. These opportune remarks were made in regard to strophanthus and strophanthine, but he pointed out, that they might be equally well applied to a number of alkaloids and plants used in daily practice. In fact, we know the essentially different nature of the effects of digitalis and digitaline, of opium and morphine, of cinchona and quinine, and of the many plants from which alkaloids are derived.

Coca is indisputably that drug to which, above all others, these remarks can be applied. Erythroxylon coca possesses analgesic properties, and is held as a superior local sedative, especially where pain exists in the region of the mouth and the throat (as noted and published by Professor Charles Fauvel, long before the discovery of the local effects of cocaine.) The beneficial effects of wine of coca have been thoroughly established in tuberculous and other ulcerations, existing on the tongue, the mouth, the lips and on the vocal cords. In all this class of cases, such a preparation is of

great value, prolonging the anæsthetic and sedative effects of cocaine when applied topically or when such application becomes for one reason or another impracticable, proving itself of great service to the physician by reason of its local action.

Coca differing essentially from cocaine, the action of the plant upon the general economy, and not its local action, should be borne in mind. It is a most active stimulant tonic, especially when used in vinous combination. No better preparation can be employed than the "*Vin Mariani*," which contains all the valuable properties of the plant, combined with a generous and absolutely pure wine. This combination has been found to give the best results.

There are numerous conditions in which this preparation is indicated. In a general way, it is serviceable in all those various diseases, which come under the clinical head of anæmia, (weak heart, chlorosis, various forms of cachectic conditions, neurasthenia, general debility, and in convalescence from fevers.)

In tuberculosis, (presenting essentially anæmic features,) it can be readily understood that the happiest results may be obtained by the use of the above preparation of coca, as also in other forms of phthisis.

Although coca is not a specific in phthisis and without wishing to claim that it is a destroyer of the bacillus of Koch, it nevertheless here proves its efficacy, and, as quite recently stated in that important work "*La Phthisie Pulmonaire et Laryngie*" by Dr. H. Libermann, Physician in Chief to the Army of France, "The bacillus alone is not the sole factor to be considered in phthisis." Contained largely as it is in the atmosphere which we inhale, it happily remains inert in the great majority of cases. In other words, its victims are those in whose organism it finds a fertile field for growth and development. All our efforts should therefore be in the direction of rendering this field less susceptible to the inroads of the bacillus of tuberculosis, until such time, when we may be able to act more directly upon this dangerous germ.

Among other means at our command to combat and to guard the organism against these inroads, may be mentioned, hydropathy, hygiene to the fullest extent, and climatology, which should always be taken into consideration by the physician and the patient.

All these data are of absolute importance, and at the same time the physician should have at his command some

agent which in all cases will by its reliable action as a diffusible tonic and stimulant, fill the following indication during treatment, namely, "*The Maintenance of Perfect Nutrition and the guarding against Debility in its various Forms.*"

The only tonic in every respect filling these indications and which it has been found may be given for an indefinite period without any unpleasant reaction in wasting diseases, is Wine of Coca. The preparation known as "Vin Mariani" (prepared by Mr. Angelo Mariani of Paris) which has been employed by the medcial profession for the last thirty years is the only one which has given me uniformly good results without the unfavorable features which frequently follow in the wake of tonics and stimulants. And I attribute this to the fact that it represents all the volatile principles of the plant, thus differing essentially from those preparations made from the dried comparatively inert leaf (the volatile principles being absent), or through ignorance of the proper requirements containing a dangerous added percentage of the alkaloid cocaine.

Thus will be seen the necessity of recognizing the merits of this plant independently of its alkaloid, and the wide field it should occupy in our therapeutics.—Dr. S. A. Nitard, *Le Bulletin Medical*, Paris, May 3rd, 1889.

Laparotomy for Intestinal Obstruction.

Dr. Cornelius Kollock, of Cheraw, S. C., during the Session of the Medical Association of South Carolina in April, 1889, reported two cases, illustrating the importance of operation as soon as practicable after diagnosis.

Case I.—Healthy lad, age 18, was seized at night with a violent pain near the umbilicus. Sinapisms, enemata, opium, etc., were used, but did not relieve. Twenty hours after the attack began, Dr. Kollock arrived, and found the patient bathed in a cold clammy sweat, with quick and feeble pulse, indicative of early collapse. Stercoraceous vomiting had occurred twice. The enemata had brought away nothing except what was below the point of strangulation. Abdomen was greatly distended and tympanitic. He at once made an incision three inches long in the linea alba, below the umbilicus. When the peritoneum was opened, a coil of intestine, heavily congested, of a purplish color, indicated the point of strangulation. A diverticulum about three inches in length, and attached at its extremity by a fibrous shred to the mesentery where it joins the gut, formed, with the ileum, from which it sprang, a loop, through which the

coil of intestine had slipped and become strangulated. The confined intestine was released by simply dividing the fibrous band and setting free the end of the diverticulum. This afforded immediate relief, and in a short time there were movements of the bowels, and large quantities of gas and fæcal matter were discharged. This patient made a quick recovery, and has enjoyed uninterrupted health ever since.

A delay of a few hours would have proved fatal. The bowels above the strangulation were highly corrugated, and of a dark purple color.

Case II.—Man, aged 25, general health good till November, when he had violent attacks of bilious colic. The pain was in the hepatic region and around the umbilicus. Several times during November and December gall-stones were passed, varying in size from the head of a pin to that of a pea, accompanied by violent pain, such as was experienced in previous attacks. On the night of January 2nd, 1889, there was another attack, more violent and distressing than any of a previous date. The pain, though to some extent paroxysmal, was very intense all the time, although morphia was administered in half-grain doses every hour or two for more than twelve hours. Immense doses of purgatives were administered, in the shape of castor oil, Epsom salts, olive oil, rhubarb and calomel, with no benefit, but doubtless with injury. In the afternoon of January 4th, about forty hours after the attack, stercoraceous vomiting came on. This afforded more relief than all the anodynes, and the patient took some milk and chicken broth, with relish. But in a few hours the vomiting returned, and the milk and broth were thrown up undigested, along with stercoraceous matter. This condition continued until 5 A. M. of January 7th, nearly five days. Dr. Kollock then saw the case. There was no doubt as to the nature of the trouble. The whole abdomen was greatly distended and very tender. Pulse 140 and weak; temperature 104°. Laparotomy was the only procedure that offered hope.

At 6 A. M., January 7th, he opened the peritoneal cavity by incision of three inches in the linea alba, about one inch below the umbilicus. The colon was twisted on itself, and a knuckle of bowel had slipped through a slit in the omentum; in addition, a band of omentum was pressing firmly upon it. The band of omentum was divided, and the bowel drawn out and untwisted. Soon, there was an audible explosion of offensive gas, followed by a discharge of fæcal matter.

This patient may be said "to have died cured," for the obstruction was removed and pain had disappeared. Death took place thirty hours after operation, from exhaustion.

Being young, with good habits and good health, if the operation had been done on the first appearance of stercoraceous vomit, this patient would have stood a good chance for recovery.

Book Notices.

Lectures on Nervous Diseases. By AMBROSE L. RANNEY, A. M., M. D., Professor Anatomy and Physiology of Nervous System N. Y. Post Graduate Medical School and Hospital; Professor Nervous and Mental Diseases, Medical Department University of Vermont, etc. Profusely Illusirated with Original Diagrams and Sketches in Color by the Author. Carefully Selected Woodcuts, and Reproduced Photographs of Typical Cases. Philadelphia. F. A. Davis, Publisher. 1888 Cloth. 8vo. Pp. 778. Price, $5.50. (From Publisher).

We have examined this work with a great deal of interest, study and profit. It treats of its subjects "from the standpoint of cerebral and spinal localization, and the later methods employed in the diagnosis and treatment" of nervous diseases. Its scientific learning, its practical teaching, and the fullness of contents and of chapters, epitomizing what is known and elaborating sufficiently points that were formerly obscurely explained, and the plain directness of method of presenting each subject peculiarly adapt this book to the purposes of text for the teacher, the student and practitioner. The sections or chapters on diagnosis are well studied, and the points of differential diagnosis are clearly and logically put before the reader, so that even the novice could read out the bearings and meanings of the combinations of the signs and symptoms set before him. In the line of treatment, the author is very practical in his recommendations. Especially does he follow closely the teachings of Dr. George T. Stevens as to the method of curing functional nervous diseases. For instance, the adaptation of suitable eye-glasses in cases of chorea is specially illustrated, and the value as shown by results is recorded so that the most skeptical cannot doubt their beneficial effect.

Our purpose in the book-notice department is not to attempt reviews; our limited space does not allow such things.

We can scarcely undertake more than to say whether a publication is good, bad or indifferent. With regard to Dr. Ranney's *Lectures*, we must say it is an excellent book for the practitioner, and by all means he should add it to his library for daily use. It goes most excellently with Dr. Hammond's immortalizing text-books; or if it be impracticable for the doctor to have both, and yet wants the latest and best, we advise him to take the *Lectures* we are now noticing.

Extra-Uterine Pregnancy. A Discussion With an Appendix Reviewing Mr. Lawson Tait's Ectopic Gestation and Pelvic Hæmatocele. Reprint from Transactions *American Association of Obstetricians and Gynæcologists.* Vol. I. 1888, Cloth 800, Pp. 70, Illustrated. (From the Printer, William J. Dornan, Philadelphia, 1889).

We wish to call special attention to this little volume, not only because of its great merit, but to indicate how so much of value can be incorporated in a small space—simply division of labor. This volume contains eight distinct sections, with a distinct author for each. For instance, by previous appointment, Dr. Townsend spoke simply of the pathology of ectopic pregnancy; Dr. Price of its diagnosis, Dr. Montgomery, of Philadelphia and Dr. A. Vander Veer, of Albany, N. Y., of its treatment, etc. If other Societies would undertake a like method, the papers at each session, on the same subject, could be collected and an excellent and exhaustive volume could be annually made which would stand in every doctor's library as a finished work on a distinct subject. We could not have had a better text on which to base our remarks than this one.

Physiology of the Domestic Animals. By ROBERT MEADE SMITH, A. M., M. D., Professor of Comparative Physiology in University of Pennsylvania, etc. With over 400 Illustrations. Philadelphia and London: F. A. Davis, 1889, Large 8vo. Pp. 938. Cloth. Price, $6.50. (From Publisher).

This is claimed to be the only English written exclusive text-book on the physiology of domestic animals. That it has been well prepared, as the result of both personal studies on the animal itself and of the scattered literature on the subject—Continental and American—is too patent, on opening to any page, to need remark on that point; and it must be adopted as the text-book in every veterinary college of the country. We have examined the work in a great many particulars, and find the views so correct where we had the

means of comparison of statements with those of some recognized authority that we will be compelled hereafter to look to this work as *the* text book on physiology of animals. In fact, in no one book on human physiology that we have in our library do we find so clear a statement of the processes of digestion, and the functions of the different organs concerned in this process. This book will prove of incalculable benefit to veterinarians wherever they may be found; and to the country physician who is so often called upon to attend sick animals as well as human beings we would say, lose no time in getting this work and let him familiarize himself with the facts it contains.

Wood's Medical and Surgical Monographs. Vol. III. Number 1. July, 1889. (1). *Cancer and Cancerous Diseases.* By Sir Spencer Wells, Bart., F. R. C. S. (2). *Cardiac Dyspnœa and Cardiac Asthma.* By Dr. S. Von Basch. (3). *Influence of Menstruation and of the Pathological Condition of the Uterus on Cutaneous Diseases.* By Dr. L. Grellety. (4). *Tensions as met with in Surgical Practice; Inflammation of Bone; Cranial and Intra-cranial Injuries.* By T. Bryant, F. R. C. S. (5). *Antisepsis, and its Relation to Bacteriology.* By Dr. J. Neudorfer. 8 vo. Pp. 254.

After so often commending the great value of *Wood's Medical and Surgical Monographs*—one of which appears monthly—it seems unnecessary to do more than mention, as we do above, the contents of the current issue, and to remind our readers that each monthly *Monograph* sells for $1, while annual subscription is only $10. It would appear that in the table of contents given, there is some subject of pressing interest to every practitioner.

Lectures on Bright's Disease. By Robert Saundby, M. D., Edin., F. R. C. P., London, etc. With Fifty Illustrations. New York: E. B. Treat. 1889. 8vo. Pp. 290. Cloth. Price $2 75. (From Publisher).

This is a practical work for the physician, and yet full enough of the literature of the subject—especially indicated by tne bibliographical references—to satisfy the claims of a classical treatise. While there are some odd forms of expression which, for a moment, draw the attention from the subject to the peculiarity of phraseology, still the clinical guide to diagnosis afforded by these *Lectures* is very serviceable. The book gives a resumé of all the important and latest advances. Therapeutically, it gives many valuable suggestions. The chapters on Surgical Kidney and on Lithæmic

Nephritis and their treatment are specially valuable. In short, the volume is worth far more than its price to every general practitioner, and is of greater value to one who is making anything of a special study of kidney diseases manifested by albuminuria, etc.

Guide to Therapeutics and Materia Medica. By ROBERT FARQUHARSON. M. P. M. D , Edin., Late Lecturer on Materia Medica at St. Mary's Hospital Medical School, etc. Fourth American, from the Fourth English, Edition. Enlarged, so as to Include All Preparations Officinal in the U. S. Pharmacopœia, by FRANK WOODBURY, A. M., M. D., Professor of Materia Medica, Therapeutics and Clinical Medicine in Medico-Chirurgical College of Philadelphia, etc. Philadelphia: Lea Brothers & Co. 1889. Cloth. Large 12 mo. Pp. 598. Price $2.50. (From Publishers).

While many changes are noticed in this edition, they are mostly in the way of additions. It retains the special features of arrangement which characterize the former editions. Its plan of arrangement is to name the drug and its synonym on top line; state chemical formula; give physical description; mention its local action, and then, in parallel columns, describe its internal actions—in one column, the physiological action, and in the other its therapeutical. Paragraphic notes are added as to modes of administration, doses, and such other specially important facts as could not well be incorporated elsewhere. The work is an exceedingly useful one to the physician who wants to get the greatest amount of information in the smallest space.

Annual of the Universal Medical Sciences. Edited by CHARLES E. SAJOUS, M. D. Lecturer on Laryngology and Rhinology, Jefferson Medical College, etc., and SEVENTY ASSOCIATED EDITORS. Assisted by *over* 200 *Corresponding Editors, Collaborators and Correspondents.* Illustrated with Chromo-Lithographs, Engravings and Maps. In Five Octavo Volumes, of over 500 pages each. 1889. F. A. Davis, Publisher. Philadelphia, New York and London. Price for five volumes: Cloth, $15; Half Russia, $20. For sale by subscription. (From Publishers).

While on the back of the cover this series is plainly enough labeled, "Issue of 1889," the omission of this statement on the title page of each volume is unfortunate; at least, the insertion of this statement would be an improvement. It would seem less complicated in the arrangement of the magnificient Index, were there a continuous paging from the beginning of the first to the last of the fifth volume.

But such suggestions seem almost as trifles compared with

the incalculable advantage of such an *Annual*. It is simply "an indispensable" to every practitioner who wishes to keep up with his profession. It is the epitome of over 500 medical journals published each year in all parts of the world. By all means subscribe to the *Annual*.

Without space for sentences in its praise, we must beg room to name the following, as chief among the *numerous improvements* introduced by the Editorial Department in the issue of 1889.

1. "*Foreign Weights and Thermometric Measurements have been reduced to those generally used in this country.* Grammes have been reduced to ounces, drachms, grains, etc., and centigrade degrees to Fahrenheit, *both* appearing *side* by *side*.

2. "*The Dates of all Journals referred to are mentioned in the Text*, thus greatly facilitating research.

3. "*An Index has been added to each Volume* besides the complete triple index at the end of the entire work.

4. "The "*Therapeusis*" column of the index, presenting a *resume* of all remedial measures introduced or recommended during the year, contains 48 pages *more* matter than the first issue.

5. "*Dosage* not furnished by the original author, and therefore, not to be found in the text, has been inserted by the Editor of the therapeusis column.

6. "Instead of being 54 pages in length as *last* year, the index is 101 pages long in *this* issue.

7. "*Four thousand quotations more* than last year, received principally through the *corresponding staff*, increase in proportion the value of the work.

8. "The *practical* worth of each article has been increased by giving a careful description of *treatment, operations*, etc., and by the reductions in weights, thermometric measurements, etc., mentioned above.

9. "Two departments have been added—"*Examination for Life Insurance*" and "*Railway Neuroses*"—subjects of *great importance* to a large proportion of the profession; and finally,

10. "The volumes have been made *less clumsy*, notwithstanding the *greater* amount of matter presented, by closer calendering of the paper, and avoidance, as much as possible, of all blank spaces in the text and repetitions.

Editorial.

American Medical Association.

The recent session in Newport, R. I., June 25-28, was attended by about 600 doctors from all parts of the United States. One of our correspondents writes that the social features so far outstripped the scientific value of the session that if there was any of the latter it was lost in the profusion of the former. Another writes that "It was a pic-nic sure enough, so that none of our party had time to attend the Sections except to go in and come out." Another one writes that "If there was anything said or done during the sessions worthy of noting for publication, I did not hear it, for I was 'on the go' all the time." All of this speaks well for the hospitality and elegance of entertainments, etc., provided by the Committee of Arrangements, but discouragingly to the three or four hundred authors of papers who had spent weeks and months in the preparation of papers for this session. They might as well have remained at home to read their papers to their local societies and friends as to have gone to the session of the American Medical Association to read to echoing halls—echoing because of empty benches. A good selection was made for President for the ensuing term in the election of Dr. E. M. Moore, of Rochester, N. Y. Nashville, Tenn., was selected as the place of meeting, beginning the third Tuesday in May, 1890. Dr. Hunter McGuire, of Richmond, Va., was chosen to deliver the Address on General Surgery—the only distinctive Southern appointment we have seen mentioned.

Medical Society of Virginia,

The Announcement-Circular of the Twentieth Annual Session of this Society is just out, and speaks well for the prospects of the unusual success of the Session, which is to convene in Roanoke Tuesday night of September 3d, 1889. We find papers on very important and interesting subjects announced by *Honorary Fellows*, Dr. Theophilus Parvin, of Philadelphia, and Dr. Geo. Tucker Harrison, of New York city; and besides, the President's Address, by Dr. E. W. Row, of Orange, Va., the following *Active Fellows* will present papers, etc.: Dr. Thomas J. Moore, of Richmond; Dr. B. L. Winston, of Hanover C. H.; H. C. Becket, of Scottsburg; L. G. Pedigo, of Roanoke; J. H. Claiborne, Jr., of New York, N. Y.; E. T. Brady, of Marion, Va.; I. S. Stone, of Lincoln, Va.; A. F. Kerr, of Williamsville; George Ben. Johnston, of Richmond, etc.; besides the reporters of each of the eight Special Sections. Among *Visitors by Invitation*

who will attend, and who announce papers, etc., are Drs. W. W. Dawson, of Cincinnati; A. Jacobi, W. D. De Garmo, A. M. Phelps, John Ridlon, Wm. Oliver Moore, etc., of New York city, etc. The mention of such names as those who will be active participants in the proceedings of the Session would seem to be sufficient in itself to assure friends of the Society that the approaching Session of the Society will be very important, interesting and valuable to those who may attend. Besides, from all sections of the State we hear that doctors will attend—many of whom will bring papers, etc.

Dr. Eugene Grissom,

Superintendent of the North Carolina Insane Asylum at Raleigh, has been acquitted by the Board of Visitors of that Institution (of which Dr. E. Burke Haywood, of Raleigh, is President) of the charges preferred against him which so seriously assailed his character as a gentleman and officer. We could not believe such charges were true; and we feel relieved of anxiety as to the truth of such charges when we remember that men of such high character as composed that Board were the adjudicators.

The Faculty of College of Physicians and Surgeons of Baltimore

Has filled the vacancies created by the deaths of Profs. Lynch and Coskery and the retirement of Prof. A. B. Arnold, who has removed to San Francisco. Prof. Thos. S. Latimer was transferred to the chair of Principles and Practice of Medicine and Clinical Medicine; Prof. Chas. F. Bevan to Principles and Practice of Surgery and Clinical Surgery; Prof. J. W. Chambers to Operative and Clinical Surgery, and Prof. George H. Rohé to Obstetrics and Hygiene. Prof. Thos. Opie will continue as Professor of Diseases of Women and Dean. New professors were elected as follows: Prof. Henry Sewell, of University of Michigan, Professor of Physiology; Dr. George J. Preston, Professor of Anatomy, with the Diseases of the Nervous System as a clinical branch. Dr. N. G. Keirle, Lecturer on Legal Medicine, in addition to Demonstrator in Pathology; Dr. George Thomas, Lecturer on Diseases of the Throat and Chest; Dr. G. A. Liebig, Jr., of Johns Hopkins University, Lecturer on Medical Electricity, and Dr. J. H. Branham, Demonstrator of Anatomy. Drs. L. F. Ankrim, Frank C. Bressler and F. G. Moyer were appointed assistant demonstrators, and R. G. Davis, prosector of anatomy. Prof. Sewell is an old Baltimorean, and was for several years demonstrator of biology in Johns Hopkins University. Prof. Arnold was elected Emeritus Professor of Clinical Medicine.

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Original Communications.

ART. I.—Ruptured Liver—Two Cases from Accident; One Case a Suicide—Post Mortem in Two Cases.*

By HENRY P. WENZEL, M. D., Milwaukee, Wis.

EX-PRESIDENT ROCK RIVER MEDICAL SOCIETY, MEMBER WISCONSIN STATE MEDICAL SOCIETY, MEMBER AMERICAN PUBLIC HEALTH ASSOCIATION, ETC.

In the following histories of cases of hepatic laceration, we shall give only the clinical picture of the subject. The therapeutical management was efficiently carried out to procure the necessary relief from the agonizing pain to obtain rest, sleep, food, drink, etc.; and we shall only allude to certain results from certain remedies.

CASE I.—*Ruptured Liver and Gall-Bladder Caused by a Bursting Emery Wheel Running at a High Rate of Speed—Death—Post Mortem.*

On November 23d, 1887, M. J. D., New York, age 36, married, in good health, tall and thin, while grinding and polishing brass goods on an emery wheel running at a high rate of speed, was struck by a piece of the wheel (which suddenly burst) and violently hurled him to the floor, falling on his back. He was insensible when picked up by his fellow-

* Read before the Rock River Medical Society.

workmen, but soon partly revived and was sent to his home ($1\frac{1}{2}$ miles off) in a carriage and put to bed. I saw him at 5 P. M., about an hour after the accident. His countenance was pale and pinched, the pulse irregular, and the temperature sub-normal. Temperature 98°, pulse 88, respirations 17, shallow. He was very restless; thirsty; nauseated; complained of agonizing pain just above the right shoulder-joint, tenderness over the hepatic region, and slight pain in the loins. He had bled from the mouth, and, on inspection, a laceration, evidently caused by the teeth, was found on each cheek (inside), about one-fourth of an inch from the angles of the mouth. His right thumb was lacerated on the radial border. His waistcoat, shirt and undershirt were torn in the mammillary line, vertically, below the nipple, the tear being about four inches long. One inch below the right nipple was a sharply defined laceration, shaped like a "T," the horizontal part measuring two inches in length, while the vertical part was 4.5 inches long, ending in a contusion which extended downward several (2) inches further. The 7th, 8th and 9th ribs were fractured in the mammary line, but there was not displacement. There was slight tympanites.

Rubber adhesive strips were placed over the fractured ribs, and one-fourth grain of morphia hypodermicaily eased the pain.

At 8 P. M., temperature 99°, pulse 92, respirations 18; passed urine perfectly normal; tympanitis more pronounced; an enema brought away some hardened fæcal masses; pain agonizing over shoulder—very sensitive over hepatic area. Nausea; singultus; thirst. One-third grrain of morphia hypodermically.

November 24, 8 A. M., temperature 99°, pulse 88, pain not so severe; slept a few hours during the night; urine spontaneous and normal; bowels moved—fæces natural. Abdomen tense as a drum; decubitus dorsal; legs drawn up. Nausea persists; vomited up a small blood-clot.

4 P. M., temperature 99°, pulse 94, respirations 20; very restless; severe pain in liver, loins, and right shoulder. Urine normal. One-third gr. morphia hypodermically.

November 25, 10 A. M., temperature 99.5°, respirations 17, pulse 90; slept 4 hours during the night; pain severe over liver and loins; conjunctiva slightly jaundiced; nausea persists; infrequent vomiting of mucus; itching of skin; thirst; anorexia; urine apparently normal; *fæces pipe-clay colored and fatty.* Morphia, one-fourth gr. hypodermically.

4 P. M., temperature 99°, pulse 96, respirations 18; pupils normal; skin jaundiced; nausea; efforts at vomiting eject only clear mucus. One-third gr. morphia hypodermically and milk, brandy, beef-tea per rectum.

November 26, 10 A. M., temperature 98°, pulse 100, respirations 20; urine voluntary, normal; fæces fatty, clay colored; very restless; tympanites extreme. A turpentine emulsion enema dislocated a large mass of flatus. One-fourth gr. morphia hypodermically. Other drugs having failed to check the nausea, hiccough, and vomiting, the following was ordered:

℞. Syr. brom. co .....ʒ iss.
Hydrochlor. cocaine.....gr. x.
Aq. chloroform .....ʒ ss.
Syr. aurantii cort.....ʒ ij.

M. Sig.—Teaspoonful every 2 to 3 hours.

4 P. M., temperature 99°, pulse 100, respirations 21; vomiting ceased; nausea less pronounced; pain over liver and in loins; urine apparently normal. In spite of nurse patient got up from his bed, went to a chair, and sat down, passing flatus freely—tympanites being somewhat relieved. No morphia.

November 27, 10 A. M., temperature 98.5°, pulse 110, respirations 22; great restlessness; no sleep during night; jaundice pronounced over the whole body; pain principally over the liver, and hepatic area very sensitive to pressure; nausea worse; singultus; fæces nearly white in color; urine normal in color. One-third gr. morphia hypodermically.

4 P. M., temperature 99°, pulse 112, respirations 23; slight cough; abdomen very tense, but not painful; very restless. One-third gr. morphia hypodermically.

November 28, 10 A. M., temperature 98°, pulse 116, very weak, respirations 24; great anxiety; nausea and retching; jaundice deepens over body; abdomen greenish-brown and tense; muscles flabby; urine normal; fæces simulate tallow; general numbness and "crawling" in the extremities (which are cold); very thirsty. Hot bottles to extremities; ice in small pieces; brandy per rectum. One-fourth gr. morphia hypodermically.

4 P. M., temperature 97.8°, pulse 120, very feeble, respiration 24; agonizing restlessness; exhaustion; singultus; pain. One-third gr. morphia hypodermically.

November 29, 10 A. M., skin of face blanched, temperature 97°, pulse 124, respirations 26; cough; agonizing pain over epigastrium and hypochondrium (right); extreme tympani-

tes; unsuccessful efforts at vomiting. Patient wandering, and insists on getting out of bed. One-fourth gr. morphia hypodermically. Growing gradually weaker, the patient dies quietly at 1:30 P. M.

November 30, 9:30 A. M. Post mortem of chest and abdomen by permission of family.

Whole back and right side purplish black; abdomen dark green and tense as a drum; chest mottled on right side and lacerations partly healed. The 7th, 8th and 9th ribs fractured in mammary line (right side); some plastic lymph is thrown out; the muscular tissue is bruised and blackish; pleura over seat of fracture covered with lymph.

Lungs: right side—upper lobe normal, middle and lower lobes clogged with liquid; blackish blood—appearing as if dusted with charcoal powder—congested; at the inferior border of the lower lobe is an old smooth, white cicatrix five-eighths of an inch in diameter and 3 lines thick—left side—upper lobe normal, lower lobe turgid, blackish, clogged, and at inferior border a dense, smooth, white, shining cicatrix nearly 2 inches square and 3 inches thick.

Pleural cavities contain a few ounces of serum.

Pericardium normal—contains 3 to 4 drachms of serum.

Heart small, fatty throughout, but most in right side—valves normal and competent; cavities empty; great vessels apparently normal.

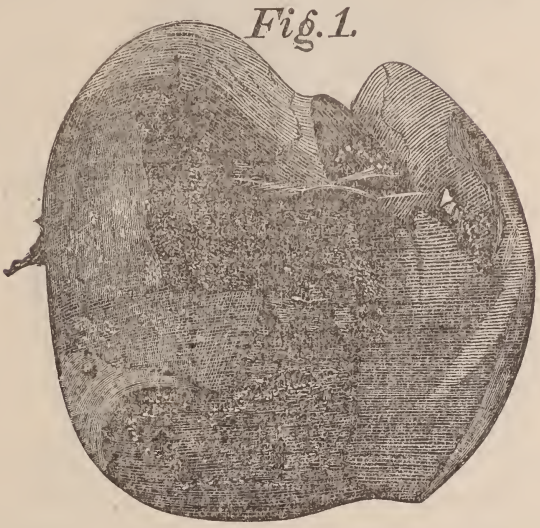
Diaphragm—upper surface normal, extends to 4th rib on right side; left side to 5th rib—lower surface, over liver, inflammatory spots.

Peritoneal cavity filled with large quantity of liquid blood and bile; peritoneum velvety and congested.

Liver: left lobe normal; right lobe extensively lacerated (stellate in places) throughout its entire thickness: along fissure of the gall-bladder the pulp is separated; the gall-bladder is partly torn away from its attachments. On the convex surface near the centre Glisson's capsule is separated from the hepatic substance 2x3 inches, and the liver tissue pulpefied. About $1\frac{1}{2}$ inches from this denuded area is a tear through the capsule and half way through the lobe. This tear is $1\frac{1}{2}$x$\frac{1}{2}$ inch.

The accompanying illustrations are from photographs taken by my friend, Mr. Eissen.

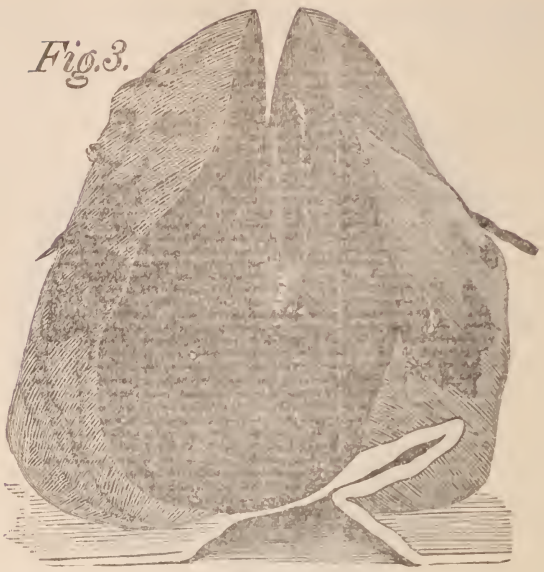
Fig. 1.



Lower surface of right lobe, showing condition 20 hours after death.

Fig. 2.

Upper surface of right lobe of liver, showing injury and tear 20 hours after death.



Interior of right lobe, showing extent of putrefaction 20 hours after death. It is pulpefied and blood-logged.

The photos 1 and 2 present the extent of injury so naturally and accurately that I will not attempt to give a description in detail.

The stomach, spleen, kidneys and bladder are normal; the bowels are distended with a sweetish fœtid gas, but otherwise normal: mesentery is normal.

Remarks.—Owing to the extremely sensitive condition of the hepatic region, it was impossible to percuss at any time; there was no marked prominence of the right hypochondrium. Any pressure exerted over the liver caused sharp, darting pain just over the right shoulder-joint.

Two of the workmen informed me that the piece of the wheel which struck the patient lay in his lap when they picked him up; it weighed about 5 pounds. Another piece from the same wheel struck a solid brick wall, and left a dent quarter inch deep.

Consciousness supervened until one hour before death.

The evacuation of bowels and bladder was voluntary—twice daily. Whether the tympanites was wholly due to the

absence of bile *within* the bowels, or to its irritant effect on the serous covering, or whether the concussion caused a paralysis of the intestinal coats, is not clear; there may have been concussion, or worse, of the spinal cord.

The question, "Will laparotomy be advisable?" was considered and discussed, and (objected to by the family) was not deemed advisable; and if performed, would have availed nothing, as the extensive laceration and pulpefaction of the hepatic tissue would not permit of successful ablation of the whole right lobe.

That the serious lesion of the heart—fatty degeneration—gave no symptoms is rather remarkable, and the scars found on the lower lobes of each lung remain unexplained.

CASE II.—*Ruptured Liver and Other Injuries—Death—Section Not Allowed.*

Late in the evening of June 13th, 1880, H. F., aged 17, while bringing a young horse from pasture, attempted to mount the restless beast, and, while struggling to get on the animal's back, his foot slipped through the bridle-rein. The horse ran away, throwing the rider, and dragged him over a rough corduroy road about 40 rods. His brother seeing the accident, hastened to where he was left by the fleeing horse, "in a pool of blood," and, with assistance, had the senseless body conveyed home and placed on a lounge. Four hours after the accident I arrived and found the patient unconscious; there were spasmodic convulsions, respirations deep and slow, pulse feeble and intermittent, temperature sub-normal, pupils dilated and irresponsive.

The scalp was torn from ear to ear across the vertex and reflected over the neck. Over the right superior border of the occipital, and implicating the parietal, was a depression about the size of a "cork of a horse-shoe," and denuded of periosteum 1x1½ inches in size.

Over the region of the liver was a bruised wound, an exact impression of a horse's hoof moderately large; the cartilages of the 8th and 9th ribs were separated from their sternal attachments, and the ribs were displaced inwards half an inch; the 11th rib was fractured in its middle, and the 12th rib broken completely off its spinal attachment, both considerably displaced.

There were numerous lesser wounds, bruises and scratches on various parts of the body.

The scalp wound was cleansed carefully and coapted by 18 fine silk sutures, and carbolized dressings enveloped the whole head except the face. The other wounds received their share of attention.

After the dressing and closing of the wounds the convulsions ceased and appeared no more.

Condensing from my notes: Consciousness returned on the following day and remained until shortly before the lethal ending. The temperature ranged from 97° to 102.5°. The low temperature, 97°, was observed on the day after injury, and again on the day preceding death, when, shortly afterward, a copious hæmorrhage from the bowels set in, but was soon controlled. The pulse ran from 60 to 140 beats per minute, and was irregular all the time. There was some dyspnœa during the course, and tympanites was not excessive. Pain was moderate, and principally over the hepatic area, and deflected into the right shoulder. There was sensory paralysis of both legs two days before death. *The urine stained clothes green;* the bowels were evacuated involuntarily the last five days; the fæces were clay-colored from the third day after the injury to the end. Jaundice developed on the third day, and became very deep. There was no headache; nausea continuous, retching frequent, and vomiting rare—mucus only being ejected. Thirst was moderate; anorexia throughout; emaciation marked and rapid. The scalp wound was completely healed on the 9th day, and the wound over the liver area was cicatrizing nicely. Death quietly some hours after the rectal hæmorrhage.

Autopsy not permitted.

Remarks.—Aside from the numerous scratches and bruises, and the extensive scalp-wound laying bare the occipital and parts of both parietal and both temporal bones, all symptoms, after the re-establishment of consciousness, pointed to the liver. That no brain or meningial inflammation loomed up is certainly noteworthy. Speech was always rational during the illness. There was no doubt some serious concussion (or worse) of the spinal cord—*i. e.*, involuntary evacuations, and the sensory paralytic symptoms. The extent of injury to the liver is of course indefinite. The treatment throughout was anodyne and expectant.

Case III.—*Rupture of Liver and Spleen—Suicide.*

October 12, 1880, I was summoned by the coroner to in-

vestigate the cause of death of, and to make an autopsy on M. H., age 47, German, who had committed suicide in his bed-room by taking the "double-barrel shot-gun route," between 6 and 7 o'clock in the morning.

The body was fully dressed, and lay in the middle of the bed-room, on the back, legs extended; left arm and hand extended along the left side of the body; the hand half-closed; the right hand, forearm and hand were extended upward and outward, slightly bent at elbow and wrist, and lying palmar side up; the hand was tightly closed over the handle of an ordinary claw-hammer, the striking surface of which was blackened by recent burnt powder-stain, and emitted a faint burnt powder-odor; an ordinary (wearing) cap lay about a foot from the top of the head.

Between the legs lay a double-barrel shot-gun (German pattern), the butt near to but beyond the feet, and the muzzle pointing toward the groin; the left barrel was rusty and the nipple broken off flush with the barrel—the fracture was covered with rust; the right barrel had been recently discharged, and its nipple was split in two unequal parts (fracture recent), one part lying on the floor, the larger piece still attached to the barrel of the gun.

The lower jaw dropped; both eyes wide open and staring directly upward. The clothing was apparently not disarranged; however, the low-cut waistcoat was buttoned (three buttons), the gingham shirt had 5 buttons, the lower 4 open; the flannel undershirt also had 5 buttons and, like the shirt, was only buttoned at the neck

There was no disarrangement of furniture or bedding, and no blood-stains anywhere in the room or on the outside of the clothing. Removing the clothing, the body (about 5 feet 6 inches in height and weighing about 140 pounds) had a blood-clot in the epigastrium; and upon removal of this a circular hole nearly an inch in diameter, with inverted edges one inch below the tip of the xiphoid cartilage, led into the abdomen. Around the rim of this hole was a perfect impression of the muzzle of the gun-barrel, and at its side just as perfect an impression of the other gun-barrel—a perfect fit for the muzzle of the gun.

There were no powder-stains on the skin, nor was there any scorching of the skin or clothing.

The abdominal cavity was filled with black, fluid blood. There was a strong smell of burnt powder, and the heavy paper wads were also found.

The right lobe of the liver was intact; the left lobe was

black, pulpefied, and adherent to the right by a few shreds of its capsule.

The spleen was torn into 5 pieces and loosely held together by its capsule.

The stomach was not injured; the intestines not perforated. The bladder and kidneys were normal. The outer (serous) coat of the abdominal aorta over the third lumbar vertebræ was lacerated in three places.

The left half of the third and fourth lumbar vertebræ were shattered and full of shot. The lower end of the spinal cord was apparently not injured. The meninges were bruised. The shot did not pass into the skin behind.

The organs of the thoracic cavity were normal.

The cranial cavity was not examined.

The pressure exerted with the gun on the skin in the epigastrium, to leave a perfect impression of the muzzle of the gun five hours after the deed, must have been remarkable, and it is remarkable that the gun-barrel did not burst.

The principal cause of death was from the concussion of the exploding charge in the peritoneal cavity.

296 *W. Water Street.*

Art. II.—Carbolic Acid Injections for Radical Cure of Hydrocele.

By WILLIAM PERRIN NICOLSON, M. D., of Atlanta, Ga.

Professor of Surgery Southern Medical College, etc.

Though attention was called several years since to the use of carbolic acid as an injection for the cure of hydrocele, there has not been the general employment of it that its success warrants, and in some of the leading text books on surgery that have appeared recently there is no mention of this method of treatment. My observation has been that almost all who have not adopted this means, or seen it tried, are sceptical and doubtful as to the claims made for it by its advocates. The old iodine treatment, with its many disadvantages, is followed in preference to the new method.

The operation is performed by throwing the acid through the canula in the ordinary way, care being taken to keep

it from escaping into the wound or upon the scrotum. In small hydroceles the fluid may be evacuated with a hypodermic syringe, and the acid introduced through the same needle. In large sacs the method recommended by Dr. Keyes may be adopted. He first introduces the needle of a hypodermic syringe, and then, having evacuated the fluid with a trochar and canula, throws in the acid with the hypodermic syringe. This seems to me to be the most desirable method of operating, and in future I shall adopt it.

The claims made for the carbolic acid treatment are the great certainty of its action, combined with entire freedom from pain, and much less violent reaction than iodine. It is hard to make one credit the statement that the injection of a fluid drachm of liquefied acid into the tunica vaginalis is absolutely painless, but such is the fact. There is a moment (perhaps a second or two) of stinging pain, and then it is over. In only one case have I seen a violent reaction; and as will be seen later, that was brought on by imprudence. As regards the certainty of the result, I have seen a cure when other means had failed; and my only failure was when not enough acid was used.

The following cases have been taken from my note book as illustrating the effects of the treatment in different forms and conditions of hydrocele:

Case I.—Mr. W., aged 60, farmer, was sent to me from South Carolina. Two years before, while plowing, he was struck on the testicle; soon afterwards this swelling began. A physician applied a truss, which he wore some time, and then abandoned it because it made his trouble worse.

There was a large hydrocele of the left side, showing the testicle behind by candle test As this was my first use of the acid, I was sceptical; but after evacuating eight ounces of fluid, a fluid drachm of liquefied acid was thrown in through the canula. There was no pain, and in the afternoon I found the patient sitting on the piazza when I called. In two days he returned to South Carolina, and has had no return of the trouble.

Case II.—Mr. B., bookkeeper, aged 50, gave the following history: For several years there had been a hydrocele, and once when it became painful it was tapped and relief obtained for several months. Subsequently a physician in-

serted a trochar and canula and obtained no fluid. Upon examining with candle, the testicle was found in the front, which accounted for the last failure. As the patient was very timid and much afraid of pain, I determined to use the carbolic acid. On account of the position of the testicle, the canula was inserted in the bottom of the scrotum, and a full goblet of fluid evacuated. The drachm of carbolic acid injected did not cause any pain even in this timid subject; the only difficulty encountered was the dribbling away of some of the acid through the dependent opening. The scrotum was strapped twice to encourage absorption, and a perfect cure resulted.

Case III.—Mr. R., banker, aged 60, hydrocele of the cord and upper tunica of many years duration. Was once operated on by the seton method, and again with iodine injection. Each time, after an apparent cure, the trouble returned. Two ounces of fluid were evacuated and a drachm of carbolic acid injected. Patient suffered no pain and remained in house only one day. Cure was complete in a few weeks; and now, at the end of five years, there has been no return.

Case IV.—J. W., physician, aged 35, hydrocele appeared two months before from no assignable cause. After evacuation of four ounces of fluid, half a drachm of carbolic acid was injected. Evidently not enough was used, for in six weeks the collection of fluid re-appeared. It was evacuated and a full drachm injected. Both operations were made in my office and the patient suffered no pain in either instance. The morning after the second injection he walked a great deal, and brought on an orchitis that kept him in bed ten days. There has been no return of the hydrocele.

Case V.—D. C., aged 6 years, gave following history: Suffered from congenital hernia which was cured by wearing a truss. Afterwards a celebrated surgeon made him wear a truss pressing on the hydrocele, from which he got a great amount of suffering and no good. One year before operating, I saw him in the South, and threw away the truss. Upon examination recently I found hydrocele of left side, with testicle in the extreme bottom of the sac. The fluid was evacuated with hypodermic syringe and fifteen minims of acid thrown in. There was no pain and the little boy was undressed only two days. There is every indication of a perfect result

I had never before used the acid in so young a subject, and hence the result has been watched with interest.

The foregoing cases show conclusively, I think, that the

claims made in the beginning of this article can be substantiated in the fullest degree. As far as I am able to discover, from my observation and experience, the prejudice against this remedy is unfounded. The only case in which I have seen any constitutional effect from the carbolic acid suspected was that of the physician who told me he thought he discovered some of the toxic effects in his last injection. I was not aware of any from my standpoint.

Surely the substitution of a painless remedy for the very painful iodine, with less subsequent reaction, and results equally as good, and perhaps better, is a great consideration for the surgeon and patient. That so little on this subject has appeared in medical literature for sometime is my only excuse for these reports.

While considering the subject of hydrocele, I cannot refrain from commenting upon the lamentably faulty diagnosis made in so many cases that have fallen under my observation. In almost every patient who has ever consulted me for hydrocele, some physician has at some time made him wear a truss.

I can only hope that my experience has been unique in this respect, and that such failures are not general. Nothing should be more simple of detection than a hydrocele, especially one uncomplicated with lesions to mask it. But that these mistakes result from carelessness on the part of the physician I am willing to believe.

9 *Edgewood Avenue.*

ART. III.—Dangers of Suspension Plan of Treatment

By E. L. TOMPKINS, M. D., of Washington, D. C.,

ASSISTANT PHYSICIAN IN DR. WM. A. HAMMOND'S SANITARIUM FOR DISEASES OF NERVOUS SYSTEM, ETC.

Although suspension is employed as a therapeutic measure in the treatment of various spinal troubles, particularly locomotor ataxia and functional impotence, there are a good many dangers connected with it, and four deaths have

already been recorded. These deaths were due, in three cases, to the persons suspending themselves, with no assistant being present. No one should try such an experiment without the assistance of a physician, and then the ropes should be so long and the pulleys work so smoothly, that if an accident should happen, the patient could be let down to the floor at once.

The accident that happened at Dr. Starr's clinic at the Vanderbilt Dispensary, and reported by Dr. Skinner, prompts me to report the following case:

J. V., an Italian by birth, was being treated for locomotor ataxia, in the Sanitarium of Dr. Wm. A. Hammond. Suspension was one of the features of the treatment and was performed each day.

In an article by Dr. Hammond some time since, he described our apparatus, how the shoulder straps had been abolished and how a spring balance had been so arranged, that the exact weight on the neck could be ascertained.

The first time the patient was suspended and the weight was about 80 pounds, he suddenly became cyanosed and unconscious and hung perfectly limp by the neck. I let him down as quickly as possible and he soon regained consciousness. His pupils were widely dilated but his pulse was regular. He said he did not feel any pain and did not recollect anything.

As soon as he had recovered from his fright, I suspended him again, with the same result; but this time there was a convulsive movement of each hand, that was decidedly epileptiform in character. As soon as he was let down, he would recover consciousness quickly but not recollect anything about it.

Each day, for several days, he would experience the same thing and soon he was able to recognize a peculiar feeling, which he described as "going up into the air." This feeling would come on just before losing consciousness and in time for him to call out to me to let him down.

We noticed finally that each time the strap pressed on the ear, either directly over it or behind it, he would have an attack, but if it did not touch it at all, he would not have the attack.

Notwithstanding these difficulties, his symptoms rapidly disappeared, his walking improved very much, and his pains

all left him. The erectile power of the penis, which had been lost for about two years, was restored and he was enabled to have sexual intercourse. When he entered the Sanitarium he was obliged to walk on crutches and even then be very careful and watch his feet all the time. In two weeks he could walk fairly well, without even a cane. This man had just purchased a suspension machine in New York and intended suspending himself. If he had been alone during one of these attacks, he would certainly have died.

The probable explanation of the attacks is, that his ear was an epilepto-genetic centre and each time the strap, by pressing on the ear, irritated that centre, he would have an epileptic attack.

Dr. Hammond, in his work on *Nervous Diseases* (page 712), speaks of a similar case. He states that in that case, there was such a centre over the middle third of the sterno-mastoid muscle, and that it was only necessary to touch that spot to induce spasm of the muscles of the neck, shoulder and face, on that side. The patient was in the habit of wearing a high collar and the hyperæsthesia of the eccentric nerves became so great that finally the least touch, even that of a camel's hair brush or a current of air, was sufficient to induce spasm.

Dr. Hammond, in verbal communication, related to me the details of a case that occurred at his clinic at the University of the city of New York. It was that of a man whose epilepto-genetic centre seemed to be a circumscribed spot on the top of his head. The slightest touch on this spot would produce an attack and the mental impression became so intense that a spasm could be induced by standing in front of him and pointing the finger at his head. Various remedies were tried to relieve this without effect, until the Doctor cut with a knife through the scalp to the skull all around this sensitive spot.

I am convinced that when a patient is being suspended, he should not be left alone even for a minute, because such an attack comes on very suddenly, without any warning. Moreover, they frequently suffer from vertigo and require letting down immediately. The vertigo usually, but not

always, attacks them as they are coming down; and as they express it, they had much rather go up than come down. It is well for them to stand still for a minute or more, after they are let down and the strap removed, as they generally have a feeling of weakness which may not amount to true vertigo.

14th Street and Sheridan Avenue.

Art. IV.—Case of Veratrum Viride Poisoning—Use of Nitrite of Amyl—Recovery—Remarks.

By LEWIS G. PEDIGO, M. D., of Roanoke, Va.

On Friday evening, April 5th, at 7 o'clock, I was called in haste to see a child who was suffering from the effects of veratrum viride, occasioned by eating largely of the indigenous Indian or meadow poke root (American hellebore). It seemed that the patient, a boy of four years of age, had procured the root about noon, and, supposing it to be "artichoke," had eaten a large quantity of it about one o'clock. A small portion of it wat vomited once or twice in the afternoon. According to the best history I could obtain, the vomiting had been very persistent and distressing for three hours; the strength had been steadily failing, and the extremities were growing colder each hour.

At the time of my visit, the patient was in a stupor; the hands and arms, feet and legs, were cold, the pulse exceedingly feeble, and the respiration shallow and somewhat irregular. When I succeeded with some difficulty in arousing him, the severe retching began at once. I administered a small dose of compound spirits of ether and French brandy, which was immediately rejected by the stomach, the patient falling back into the same condition of coma.

I then proceeded to use amyl nitrite by inhalation (as suggested by the writer in the *Virginia Medical Monthly* in May, 1888). Three immediate results were noticed: the pulse was strengthened, the breathing became deeper and more satisfactory, and the patient awoke with a brighter facial expression than when aroused by other means. Whenever the sleep became at all profound, a few drops of the remedy were placed on a handkerchief and held to the nose, with the invariable effect of awakening the patient.

Five minutes after the first use of this, the dose of French brandy and Hoffman's anodyne was repeated and retained. Fifteen minutes later a half glass of buttermilk was given—also retained. The amyl nitrite was used *pro re nata* for two hours. The extremities gradually became warmer, and the general condition of the patient was strikingly improved. He could sit up in bed without any return of the vomiting. In fact, this usually obstinate symptom never reappeared at any time after the use of the first drop of the remedy.

The patient was inclined to sleep lightly, when undisturbed, for about thirty-six hours The recovery was steady, and in every way satisfactory.

The effects of veratrum viride are so well understood that comment on this case is almost superfluous.

An interesting fact from the practical as well as the scientific point of view is the marked relief afforded by this remedy to one important symptom, viz: vomiting. The practical item is that we not only realize the direct benefits of the remedy in its primary effect upon the various vital functions, but by quieting the stomach so promptly and so surely, we are enabled to avail ourselves of other very important measures, such as the use of alcoholic stimulants and nourishment by the mouth.

The scientific interest has reference to the prevalent theory that the vomiting of veratrum viride poisoning is due to anæmia of certain cerebral centres, associated with weakness of the heart's action. The particular centres affected are supposed to control inhibitory action about the stomach and the accessory apparatus called into action in reversed peristalsis of that organ. The prompt and unmistakable relief by nitrite of amyl—a drug which is known to sustain the heart's action and to produce general cerebral hyperæmia, tends to confirm this view.

The same fact falls into line, in a remarkable way, with the theory advanced by the writer (in a paper read before the Medical Society of Virginia last October), that amyl nitrite stimulates certain nerve centres of inhibition. The inference was drawn, in the first place, from phenomena connected with the antagonism between this drug and prus-

sic acid. Now, it seems to be corroborated in some measure by observations made in a different field.

This one case is merely another link in the lengthening chain of evidence tending to establish amyl nitrite as the leading antidote to the poisons belonging to the great cardiac depressant group.

It is my purpose to perform a series of experiments with the same remedy for aconite poisoning. I do not anticipate such striking results as with prussic acid and veratrum viride, for the reason that aconite affects more directly the integrity of the cardiac muscle.

Art. V.—General Observations on the Use of Antipyretic Remedies in Febrile Diseases.*

by JOSEPH JONES, M D., of New Orleans, La.

Professor of Chemistry and Clinical Medicine, Tulane University of Louisiana; Visiting Physician of Charity Hospital, New Orleans, La.: Honorary Fellow Medical Society of Virginia, etc.

The high degree of precision which medical diagnosis has attained, has been accompanied by such important contributions of pharmacology as have enabled therapeutics to enter the ranks of the exact sciences. Whilst it is true that the brilliant discoveries in the domain of physiology and pathology, and the revelations of the secrets of morbid anatomy by Morgagni, Rokitansky and a host of devoted workers, tended to weaken confidence in the dogmas taught by the schools of medicine, and promoted skepticism with reference to the mode of action and therapeutic value of many drugs, nevertheless medicine made a substantial gain, when speculation and dogmatism gave way to scientific investigation. The progressive spirit of science must inevitably cause fluctuations in theory and practice; but medical art is possessed of sound and substantial means, amid all these changes, to meet successfully numerous and dangerous de-

*Read before the Louisiana State Medical Association, New Orleans, April, 1889.

viations from health. The thorough investigation by competent medical observers of the natural history of diseases, on the one hand, and of the therapeutic action of remedies on the other, is the only safeguard against overweaning confidence in favorite therapeutical measures, and the best corrector of irrational skepticism.

Allowing due weight to the effects upon the rate of mortality in different modes of treatment, of the variations of climate, condition, and degrees of severity, it must be admitted that the rate of mortality in the great class of febrile diseases, has steadily diminished during the past thirty years.

With reference to *typhoid fever*, which may be selected as a type of those acute febrile diseases which are self-limiting, and show a tendency to spontaneous recovery, the search after remedies which may subdue or modify the febrile movements have met with at least partial success. It must, however, be admitted that nearly all the so-called antipyretics which have recently come into use unfortunately possess the property of overwhelming nerve centres, when administered in adequate and continued doses; and the artificial depression of the respiratory, circulatory and thermic centres cannot be contemplated with indifference in patients struggling against the onslaughts of the febrile poison; if the elevation of the temperature and the acceleration of the pulse constituted the only essential elements of the fevers, and not merely their most prominent and constant symptoms, then the employment of antipyretic and antagonistic remedies, might reasonably be considered to approach the character of a rational curative treatment. The characteristic lesions of typhoid fever are manifold, and the most dangerous and fatal manifestations of this disease progress unchecked, notwithstanding the reduction of temperature by the continuous employment of antipyrine and antifebrine.

The labors of the chemist and physiologist in laying the foundations of a knowledge of the connection between chemical constitution and physiological action, not only tend to greater precision of thought in therapeutics, but also suggest new lines of inquiry which promise important results.

The observations of Moncerro, Jacobowitsch, Stiffen, Dujardin-Beaumetz and other investigators in Europe and America have illustrated the effects of certain antipyretics, as antipyrin* (dimethyl-oxy-chinicine), thalline†, (tetra hydros-oxy-chinolin), antifebrin,‡ (phenyl-acetamide, $C_6H_5C_2H_3ONH$,) and kairine (hydrochlorate of oxy-ethyl-chinoline hydride) on the temperature and tissue changes in health and disease, and have shown that these agents possess the power of lowering the temperature both in health and disease.

It is, however, true that no medicinal antipyretic as yet known is free from risk. *Resorcine* possesses such powerful toxic properties, and is such an irritating medicament that it is unsuitable for internal administration. *Kairine* is

*_Note._—A synthetically prepared alkaloid. There are two substances bearing this name, namely, methyl-oxy-chinicine, and dimethyl-oxy-chinicine. The latter is the commercial drug.

†Antipyrin and thalline, stand to each other in a similar relationship in their action upon the human economy, as do nitro-glycerine and nitrite of amyl, as nitrous oxide and chloroform. The effects of the one drug are more lasting than those of the other. Antipyrine efficiently depresses the temperature and its effects are often perceptible for many hours. Thalline, on the other hand, while an equally good antipyretic in its power of lowering the temperature, is less efficient, in that its influence is sooner recovered from, and appears to be the safer drug of the two.

‡A white crystalline powder, almost insoluble in cold water, but freely soluble in alcohol; known to chemists as acetanilide or phenylacetamide. It is neutral to test-paper and has a slightly burning taste.

Acetanilide is remarkable, as the first indifferent body with antipyretic properties—previously known antipyretics being either phenols (salicylic acid, hydrochinen, resorcine) or bases belonging to the chinoidine series, (kairine, thalline, antipyrine, quinine).

Notwithstanding its insolubility, acetanilide (antifebrine) appears to be four times stronger than dimethyl-oxy-chinicine (antipyrine.) Dose, 0.25 to 1 gramme in water, or in wafers, or mixed with wine.

Its action commences within an hour of its administration, reaches its maximum in four hours, and in a period of three to ten hours the temperature is reduced to normal and remains so for six or eight hours. This effect can be obtained from a single dose. The reduction of temperature is accompanied with redness of skin and moderate perspiration; pulse lower in rate and increased in tension. It agrees well with the intestinal canal, and is not liable to cause rigors. It is cheap, costing only 30 marks per killogramme. The dose should not exceed 30 grains in the 24 hours, and must be regulated according to the age and condition of the individual.

dangerous when administered without caution, because it produces its antithermic effects by destroying the hæmoglobin, and profoundly altering the constitution of the blood—conditions to be especially avoided in infectious febrile diseases. *Antipyrine* is toxic in action, but less so than resorcine; it has little effect upon the blood or circulation, slightly increasing the blood pressure; it lowers the temperature both in health and disease, by its action on the nerve centres and tissue changes, by causing profuse perspiration, and increased evaporation; it sometimes, though rarely, causes vomiting and collapse. These properties constitute antipyrin a valuable remedy for the reduction of temperature; and it has been used for this purpose, with benefit, in the treatment of surgical fever, typhoid fever, phthisis, pleuritis, pneumonitis, acute rheumatism, pertussis, chorea progressive muscular atrophy, measles, erysipelas, scarlatina and various diseases, migranous headaches and various abnormal and paroxysmal nervous discharges.

Antipyrine has also been used with benefit in dysmenorrhœa, pelvic catamenial neuralgia, and for the mitigation, if not absolute relief, of the pains of parturition.

If the nervous system exercises a predominant influence in the regulation of the production and discharge of heat, and if pyrexia, be in many cases a neurosis, then there is a strong probability that antipyrine is of value in checking fever, by acting upon and restoring the tone of diseased nervous centres.

Dr. Jas. P. Goodhart, Physician to Guy's Hospital, and to the Evalina Hospital for Children, has given some wise observations on the use of antipyretics for the reduction of the heat of fever. He says: "Antipyretics have been advocated by some in enthusiastic terms for the sudden and sharp febrile states that are met with in childhood, and I am far from saying that in such they may not be of use. I believe that they may be of great use in that special condition known as hyperexia—or rather in the states which threaten it—because in it the rise is very sudden, the attack is of the nature of a sudden storm blast, and the tissues may be irreparably withered by it. In the same way in children sud-

den fever may do irreparable damage to their succulent tissues, and a dose of antifebrine or antipyrine may arrest this. Nevertheless, it will occur to all of us that the attacks in which they seem to be so beneficial, are just those whose nature is to subside as suddenly as they come, and I do not think the evidence they afford is as yet conclusive in favor of these remedies."—*Brit. Med. Journal.*

"What is wanted is an antipyretic that will depress the temperature, keep it down, and yet be no risk to the patient; and such a drug we do not possess at present. He would be a bold man who would say we are not likely to obtain such an one in the present days of rapidly-advancing knowledge and energetic investigation; but, at the same time, that is the thought which is present to me now. With anæsthetics, it may almost be said that in proportion to the completeness of the effects, of which of course the duration is one of the chief elements, so is the risk. So is it, I had almost said so must it be, with antipyretics; and, if drugs are given to children which suddenly knock down the temperature and keep it down, I doubt very much whether an operation of this kind can ever be altogether free from danger. There are many contributions to medical literature upon the advantages accruing in febrile diseases from the use of antipyrine and the harmlessness of the drug. I would venture to say, notwithstanding, that it must be given with caution. It may produce—I have seen it do so more than once—a condition akin to collapse, which was for the time alarming.

"May I further remind every one of his own experience of fever in children? Of how few children could it be said that the pyrexia killed them? Of how few could it be said that by itself it had done much harm? Of how many young children must it be admitted that the temperature runs up to 103° F, or even 104°? and it is never so much as known—so trivial are the circumstances which excite the storm, so transient is its vigor. In children, as a general rule, it is the general aspect of the disease which must decide the treatment, and not the one element of pyrexia. Now this is not an argument directed against antipyretics; it is an

argument intended to advocate a cautious and discriminating use of them."

No subject is of greater importance to the practitioner of medicine, in temperate and tropical regions, and especially in the great valley of the Mississippi and in the Southern States of the North American Republic than the treatment of *malarial fever in all its varied forms and manifestations.*

Writing in January, 1887*, we thus formulated our experience, and illustrated the practical results, by an analysis of 6,311 cases of various diseases treated in the wards of the Charity Hospital of New Orleans, from 1869–1886 inclusive.

Of 2,327 cases of the various forms of intermittent fever (quotidian, tertian and quartan), only five, or about 0.21 per cent. terminated fatally. The mortality in remittent malarial fever was greater, the deaths numbering seven in a total of 247 cases; per cent. of mortality, 2.83. One-half (50 per cent.) of the cases of malarial hæmaturia terminated fatally, and more than one-half the cases of pernicious congestive malarial fever died, or, more exactly, fifty-six deaths in eighty-seven cases (64.3 per cent). The deaths from chronic malarial cachexia were more numerous than in the intermittent and remittent fever, but less than in the pernicious and hæmorrhagic forms; fourteen deaths occurring in 212 cases, or a mortality of 6.6 per cent. The fatal cases of intermittent fever were complicated with intercurrent diseases.

It is evident from the preceding statistics, that the treatment adopted by the author yielded results corresponding with the nature, severity, preceding duration and effects with the various types or varieties of the malarial diseases. In an effort to formulate the general plan of treatment pursued in these cases, it is evident that the remedies were necessarily adapted to the natural progress and history and visceral complications of each class and condition of the malarious manifestations; and for purposes of clearness and

**Medical and Surgical Memoirs, Containing Investigations in the Geographical Distribution, Causes, Nature, Relations and Treatment of Various Diseases.* 1885–1886. By Joseph Jones, M. D., etc. Volume II, pp. 1135–1143.

precision and brevity we will present the practical results under the following heads:

1. *Acute, Sthenic, Intermittent and Remittent Fevers, Occurring for the First Time in Healthy Individuals.*

Numerous cases have come under my observation of treatment of natives of Europe and of the healthy, non-malarial districts of the United States of America, who have been attacked by the various forms of intermittent and remittent fevers for the first time in the history of their lives. Thus I have seen entire crews of Northern sailors stricken with intermittent and remittent fevers shortly after their arrival in the Southern rivers, bordered by extensive swamps and marshes. Natives of Ireland, Germany, France, Italy, Spain and England, who work for the first time upon the railroads and in the swamps, rice-fields and marshes of Georgia, South Carolina, Alabama, Louisiana, Mississippi, Arkansas and Texas, are subject to the most violent forms of intermittent and remittent fevers in the months of July, August, September and October. Such cases, if imperfectly treated or abandoned to the powers of nature, either perish in the acute stages of the malarious disease, or suffer repeated attacks of chills and fever; and, during the repeated congestions of the internal organs, and the oft-recurring cold and hot stages, are gradually reduced to a most distressing and dangerous condition. The repeated and prolonged action of the malarial poison induces destruction of the colored blood-corpuscles, anæmia, hepatic and splenitic enlargements and indurations, aberration, nervous phenomena, neuralgias, muscular prostration and general anasarca; although it may be true, that a certain percentage of cases of intermittent fever in comparatively healthy localities, especially when the individual moves out of the malarial region in which the disease has been contracted, into a non-malarious district, may recover spontaneously without the exhibition of quinine or any other remedy.

This statement does not apply to the swamps, marshes and rice-fields of our Southern States. In these low, moist, malarious districts, the poison of malarial fever is ever pres-

ent; and while it may slumber and hibernate during the coldest weather of the year, it returns in the spring-time with the vegetation, and attains its maximum intensity in the months of July, August, September and October.

If this disease be often self-limited in its character, and terminates in health, either from the elimination of its cause or the exhaustion of susceptibility to its action, or from the *curative power* of nature, such favorable termination is only possible in healthy non-malarious localities, and appéars to be well-nigh impossible in such regions as the swamps, marshes and rice-fields of our Southern States. Many cases of intermittent and remittent fevers, which appear at the outset to be devoid of danger, frequently assume, without warning, highly dangerous characters. It is, therefore, manifestly impossible to predict, at the commencement of an attack, what its subsequent symptoms, course and termination may be. In this disease, in which the virtues of quinine as an *antipyretic* and anti-paroxysmal and *antiseptic* remedy are well-established, there is no excuse for delay and indecision. "*To wait for a remission*," may be "*equivalent to the loss of a patient*," and has been justly termed "*a meditation on death.*"

Holding these views, the author has used purgatives and quinine at the outset of the disease, and continues the use of quinine in full doses regardless of the stage of remission or intermission or febrile excitement. Whilst unloading the portal circle and relieving the congestion of the brain, liver and spleen by mercurials, quinine also has been simultaneously administered. Thus ten grains of calomel and sulphate of quinia, followed in four hours by one fluid ounce of castor oil and from five to ten grains of quinine, administered promptly in the onset of intermittent and remittent fever, not only causes free evacuations of bowels, but also arrests the fever and places the system in the proper condition for the subsequent action of quinine. Quinine was then administered in doses of five or ten grains until from fifteen to forty grains were administered during the twenty-four hours. After the complete subsidence of the fever quinine is not abandoned, but is administered, from ten to twenty grains each day, for at least one week after the fever,

and subsequently from five to ten grains each day for at least ten days longer; and where the patient is compelled to remain in the malarious atmosphere exhaled from swamps, marshes or rice-fields, he was advised to use quinine as a prophylactic, often combined with iron and arsenic, during the months of September and October. In those cases in which the stomach was too irritable to retain the quinine it was used externally or by enema.

For external administration, the following formula has been found to be useful:

R. Quin. sulph ..... ℥j.
Linim. saponis.. .....
Olei olivæ, ... āā ℥iij.

Mix. S.—Use as a liniment under armpit, on the inner surface of thighs, on the abdomen and spine, every two, three or four hours.

This liniment is efficient also in the treatment of malarial fever occurring in children who take quinine by the mouth with great reluctance.

When quinine is administered to the adult as an antimalarious remedy in intermittent and remittent fevers, neuralgia, brow ague, and in cases of rheumatism, pneumonia and pleuritis, resulting from cold, damp and marsh air, and which show a periodic or intermittent character, it should be given *alone*, and in large doses at regular intervals; thus beginning with ten grains, followed by the same, or half this quantity (five grains), every four hours, until the frequency of the pulse is lowered, the fever heat is diminished, and the ears ring. Sugar-coated quinine pills, as furnished "by the wholesale" from the manufacturing druggists and chemists should be universally abandoned by the medical profession in malarial regions, because their insolubility renders them incapable of assimilation by the irritated and enfeebled stomach. The use of these and other manufactured pills often causes the loss of precious time, frequently deceives both the physician and patient and ensures a fatal result when recovery should have been certain, if *quinine*, and *quinine alone*, had been administered by mouth or rectum, or by subcutaneous injection. I have seen these sugar-

coated quinine pills, and the so-called quinine capsules, pass through the bowels in intermittent and remittent fever unchanged with the discharges of the bowels. When the bowels are in active motion, and the doctor is pouring in his "elegant commercial manufactured sugar-coated and gelatine embalmed quinine pills," they may sometimes be heard falling upon the bottom of the chamber rattling like buckshot or dried peas. In all serious cases of malarious disease, where the object of the physician is to produce a prompt and decided impression, *quinine is best given alone;* each dose may be stirred in a wineglassful of pure water, or wrapped up in moistened wafer paper (to be had of any pastry cook), and swallowed as a bolus.

Pills of the bisulphate of quinia, which may be prepared extemporaneously with dilute aromatic sulphuric acid, may be used in some cases with benefit, but it sometimes occurs that this form of the sulphate is too irritating to the gastric mucous membrane.

In like manner the solution of the quinine in water by the aid of citric or sulphuric acid may prove useful, provided the acid solutions do not irritate the stomach.

As a general rule, I have not employed digitalis, aconite, veratrum viride and gelsemium in intermittent and remittent fevers, but trusted chiefly to the sulphate of quinia. In like manner, opium, hydrate of chloral, morphia, belladonna, hyoscyamus and the bromides, were used as adjuvants to quinine when necessary. Without doubt, digitalis, veratrum, gelsemium, opium and its preparations, chloral hydrate, chloroform and bromide of potassium, may be indicated in certain cases, and I have used one and all of these drugs to fulfil certain indications, but I have never lost sight of the fact that *quinine* was the great agent for the arrest and cure of the paroxysmal fevers. Chloroform used in large doses to arrest or abort the cold stage has, according to my experience, proved destructive to life, when administered by others. I regard the practice of giving large doses of either chloroform or tincture of digitalis in the cold stage of malarial fever as dangerous. Salicine, salicylic acid and salicylate of soda have proved useful in the treatment

of the various forms of fever, and especially in rheumatic fever, as depressors of temperature, and even as cathartic agents in malarious fevers; but these remedies have never, in my hands, equalled or superseded the sulphate of quinia.

2. *Intermittent Fever of Long Standing.*

The prolonged action of the malarial poison will often cause congestion of the internal organs, induce profound alterations in the blood, and structural changes in the liver and spleen. The frequent recurrence of *interstitial hepatitis* and jaundice, as well as irregular action of the heart, debility of the capillary circulation and general anasarca, characterize the chronic stages of malarial fever.

The indications for treatment are—

1. To arrest the paroxysms.
2. The regulation of the hepatic and renal secretions.
3. The restoration of the impoverished and watery blood to its normal condition.
4. The improvement of digestion and assimilation, and the restoration of the nervous and muscular forces.

To accomplish the *first* indication, quinine and arsenic are most reliable agents. The latter should be administered in such doses as not to irritate the stomach. Comparatively small doses of arsenious acid administered at regular intervals often accomplish great good in obstinate, protracted cases of malarial fever. I have frequently used Fowler's solution of arsenic in doses varying from six to twelve drops, every four, six or eight hours. Ten drops of Fowler's solution, given one hour after each meal, has been beneficial in protracted intermittent fever, marsh cachexia, and especially when the tincture of iron was administered (properly diluted) in similar doses, one hour before each meal, in order to fulfil the third indication.

Quinine was also administered in these chronic cases, according to the indications, in from three to six grains, three times a day. The quinine was frequently added to and administered with the solution of the tincture of iron. During convalescence, infusions of Virginia snakeroot (aristolochia serpentaria) and of quassia, were used with the result of

improving digestion and increasing the muscular force. Nux vomica (in powder, extract or tincture) and solutions of strychnia, proved of permanent benefit in protracted cases, especially when administered in conjunction with tincture of iron and the mineral acids.

In *hepatic derangements*, caused by the action of the malarial poison, nitro-muriatic acid, administered internally, and applied externally in the form of the foot-bath, or used locally over the region of the liver, possesses great value. The tincture of iron, as well as the nitro-muriatic acid, possesses the power of giving tone and power to the muscles, and especially to the muscular fibres of the heart—a remedy of great importance in the anæmic state induced by the action of the malarial poison. Although not apparently reduced in flesh, but, on the contrary, with bloated and swollen countenances and limbs, the miserable, anæmic, sallow victims of the prolonged action of the malarial poison, suffer from a feeble cardiac action, often accompanied with a murmur; they are incapable of prolonged muscular effort, panting for breath upon the slightest exertion, and suffering with violent palpitation of the heart, dizziness, and imperfect visi[illegible].

The distress is often very great when such patients attempt to ascend the stairs; the heart beats tumultuously, the "head swims," and the trembling patient sinks down exhausted, overwhelmed by muscular and nervous weakness and irregular action of the circulatory and respiratory apparatus. Both the cerebro-spinal and the ganglionic (sympathetic) systems are depressed in their action and deranged in their functions; and the ganglia of the heart are necessarily deeply affected by virtue of their increased activity in sickness as in health; and the muscular fibres of the heart, supplied with anæmic blood, containing the micro-organisms of malarial fever and the noxious results of their chemical actions, necessarily manifest feeble and spasmodic actions.

Under the judicious and persevering use of quinine, iron, arsenic, strychnine, and the tribasic phosphate of iron and lime, these distressing symptoms gradually pass off; the patient loses the local cardiac murmur, the action of the heart

becomes slow, regular and vigorous, the cerebro-spinal and sympathetic systems regain their tone and vigor, the intellect is again able to perform its functions, the liver secretes normal bile, the blood regains its lost colored corpuscles, the surface of the face and body resumes its healthy appearance, and the patient is able to resume his normal occupation.

It is well known that neuralgia of a strictly periodical character often prevails in the same localities and seasons, preceding alternately with and succeeding to periodical fevers, exhibits the same types and phenomena of intermission and remission. Periodic neuralgia is, therefore, produced by the same morbific ferment as intermittent and remittent fevers, and yields most readily and surely to the same general plan of treatment.

In this painful and most distressing manifestation of the malarial disease, our reliance must be in the full administration of quinia, often combined with opium, morphia, hydrate of chloral, belladonna and hyoscyamus. One-fourth of a grain of morphia with gr. $\frac{1}{150}$ to $\frac{1}{75}$ of atropia, injected subcutaneously, has proved beneficial. Morphia and the preparation of opium should be used with caution by the physician in obstinate cases of neuralgia, in order that the "opium habit" may be avoided.

3. *Pernicious or Congestive Malarial Fever.*

In the algid form, characterized by rapid, feeble pulse, cold extremities, and prostration of the nervous and muscular forces, when the intellect is clear, the main indications are—

1. To bring the patient under the influence of quinine at the earliest practicable moment.

2. To restore the general and capillary circulations, and invigorate and support the action of the heart by the judicious administration of diffusible stimulants and by the external application of sinapisms and heat.

In cases characterized by coma, blisters should be promptly applied to the back of the head and neck, and on the epigastrium, and if the bowels are not loose, a full dose of calo-

mel should be administered by the mouth. Notwithstanding the profound coma which characterizes this class of cases, pressure over the region of the stomach and liver will almost always elicit groans, cries, and signs of distress from the patient.

The author has been led, by the results of his extended experience in civil and military practice, to regard the prompt application of a large blister, six by six inches, or eight by eight inches, over the region of the stomach and liver, as a measure of great value, which may, in some instances, be the means of preserving life. The use of such agents as chloroform, digitalis, aconite and veratrum viride in the pernicious forms of malarial fever, according to the experience of the author, is attended with great danger.

The injudicious use of chloroform and of tincture of digitalis has, in some cases, caused death by depressing still further the feeble nervous cardiac powers. The large proportion of the so-called *congestive* cases have been the victims of the prolonged action of the malarial poisons before the sudden development of the dangerous (*pernicious*) symptoms, and manifest the profound action of the malarial poison in the sallow, anæmic, jaundiced countenance, and enlarged liver and spleen.

In fatal cases, the cortical substance of the brain is frequently found of a dark, almost chocolate color, from the deposition of pigment granules and pigment cells within and around the cerebral capillaries, the pigmentation being most marked in the gray substance of the cerebrum and cerebellum. The enlarged liver presents marks of interstitial hepatitis, with deposits of blood and biliary pigments in the capillary net-work of the lobules. The enlarged spleen resembles a bag of soft, dark, purplish-black mud, and has so little consistency that it can with difficulty be removed without a rupture of its capsules and trabeculæ. This black, splenic mud contains, in addition to the other constituents of the blood, numerous pigment particles and pigment-cells.

The hopeless character of many of such cases is fully revealed by the results of the post-mortem examinations, and

the tedious character and slow progress of those who recover is in like manner rendered evident.

If the physician succeeds in arousing his patient from the "*fatal*" paroxysm, his subsequent efforts to restore the blood and organs to their normal conditions must be based upon his knowledge of the characteristic lesions of malarial fever, and the therapeutic value and application of quinine, arsenic and iron. Change of climate is of great importance in the after-treatment of the pernicious forms of malarial fever, but few patients have the necessary means to enable them to make the change of locality and climate.

4. *Hæmorrhagic Malarial Fever; Malarial Hæmaturia.*

Hæmorrhagic malarial fevers prevail in certain seasons, and in certain localities, and appear to be aggravated by the dangerous system of *rice culture.*

The year 1880 was characterized by the prevalence of severe forms of malarial fever, often attended with hæmorrhage from the stomach, bowels and kidneys. This hæmorrhagic malarial fever prevailed in greatest severity in all those portions of the delta of the Mississippi in which rice was cultivated, namely, from the mouth of the Mississippi to the hills of North Louisiana and Tennessee.

Those cases which came under the immediate observation of the author in 1880 presented all the symptoms and characteristic lesions of chronic malarial toxæmia, various degrees of hepatic derangement and jaundice, profound anæmia, sudden remissions and intermissions. Beyond a tendency to passive hæmorrhages, these cases presented nothing in common with yellow fever. Even under the most energetic and judicious use of such remedies as quinine, tincture of iron, and fluid extract of ergot, the results were unsatisfactory and uncertain, and a large proportion of the cases terminated fatally.

Fortunately, hæmorrhage from the kidney is of comparative rare occurrence during the progress of malarial fever in many portions of our Southern and Southwestern States; and the form of malarious disease, called *malarial hæmaturia*, is comparatively rare in New Orleans. If the kidneys suf-

fered equally with the liver and spleen in the periodic congestions of the various forms of malarial fever, this would prove to be an almost universally fatal disease.

The result of treatment in malarial hæmaturia will depend largely upon the extent and character of the lesions of the kidneys. When these organs are profoundly involved, and hæmorrhage occurs extensively into the malpighian capsules and tubuli uriniferi, the function of these organs is necessarily greatly impaired, and often completely arrested, and the patient dies from uræmic poisonings, and in convulsions. In most cases of malarial hæmaturia, the physician has to deal with the profound lesions of the blood, nervous system, liver and spleen, induced by the preceding prolonged action of the malarial poison; it is, therefore, not to be wondered at that many and very diverse plans of treatment have been recommended in this most dangerous and fatal form of disease. No specific rules can be laid down to meet the indications of each and every case; many are so slight as scarcely to be ranked with malarial hæmaturia, and recover under the mildest measures; whilst in others, the lesions preceding and attending the attacks are so grave as to preclude all hope from any plan of treatment now known to the medical profession.

In those cases in which the author has been able to institute chemical analyses of the blood, the febrin has been increased to a marked degree, and in every case he has found derangements of the hepatic functions and secretions. Benefit has been derived in some cases by combining small doses of calomel with full doses of the sulphate of quinine. The fluid extract of ergot and the tincture of iron have accomplished good in some cases. When the patient vomits incessantly large quantities of green and blue bile, and at the same time, when he is affected with profuse discharges (sometimes bloody) from the bowels, quinine, calomel and other remedies can be administered neither by the mouth nor rectum, and the physician must resort to inunction and to subcutaneous injections. Quinia, morphine, and minute quantities of atropia, also the fluid extract of ergot, have been administered hypodermically with benefit.

5. *Measures for the Arrest of the Febrile State.*

Fever is, without doubt, of itself, either from its intensity or from its long continuance, a source of danger, apart altogether from the cause which has induced it. Thousands of lives are annually sacrificed by the neglect of the physician to note carefully, by means of the clinical thermometer, and the consequent neglect of the prompt use of the great standard antipyretic remedies, quinine, salicine, salicylic acid, salicylate of soda, antipyrin and kairin. As long as fever lasts, so long will there be increased chemical change and progressive emaciation and progressive stimulation, and careful nursing are essential to the proper treatment of fever. These measures are calculated to mitigate the ravages of fever, and also to lower its intensity; but although indispensable to the maintenance of life, they cannot alone be relied on to reduce the temperature in serious cases.

It is especially in typhoid and typhus fevers, hectic fever and tuberculosis, that the great value of stimulation, nutrition and nursing is most manifest. Arsenic and quinine, at the proper periods, and in the proper doses, are the important therapeutic agents. But without proper attention to each of the details of the case, the measures indicated would be utterly powerless. Without doubt, thousands of valuable lives have been borne safely through the stages of typhoid fever by nourishment and nursing alone. But the experiment of curing malarial fever solely by "*feeding*" fever, would end in utter defeat, disaster and death. The epitaph, '*He fed fevers*," might be a fitting tribute to the valuable labors of the eminent physician of Dublin, who treated almost exclusively continued fever, typhoid fever, typhus fever, and relapsing famine fever. But the proper epitaph to be placed upon the monument of the physician who has successfully combatted the deadly malarial fevers of temperate and tropical regions, should be: "*He Combatted and Arrested Fevers by the Employment of Mercury, Quinine and Arsenic.*"

Of these remedies quinine holds the first place, and arsenic and mercury must be regarded as valuable aids in certain states and conditions. We may undoubtedly reduce

the temperature in malarial fever by the cold bath and by the powerful antithermics, antipyrin, kairin, etc., but such reduction of temperature is temporary and deceptive. When these effects wear off, the fever will return with increased violence, if fatal collapse has not ensued. Quinine, and quinine alone, in the present state of our knowledge, possesses the power, not merely of reducing the temperature, but also of preventing the rise of temperature in some of its antiseptic as well as its antipyretic and antiperiodic properties. Salicine and the salicylates control the rheumatic fever by alleviating and curing the rheumatic inflammation. In malarial fever, salicine and salicylic acid possess but doubtful properties as antipyretics. Quinine in from ten to forty grains, or in larger doses, administered at short intervals, possesses powerful antipyretic properties.

The artificial alkaloid *kairin*, in doses from eight to sixteen grains every hour, is potent to reduce the temperature in fever. The fall from fifteen to thirty grains induces, first, dilatation of the cutaneous vessels, which is soon followed by a fall of temperature accompanied by sweating.

The normal temperature is not affected by *antipyrin*, but we find that hourly doses of thirty grains quickly bring the temperature down to below normal.

Antipyrin is comparatively devoid of taste, readily soluble in water, one to three cold, and may be administered subcutaneously.

Salicin is as certain in its power to lower temperature as kairin, and is more permanent in its effects; does not produce the nausea and vomiting which often characterize the action of kairin. When applied simultaneously, the fall of temperature is more rapid and marked than when either antipyrin or kairin are given alone.

These remedies are of direct value when, from the intensity of the fever, it is important to reduce the temperature rapidly. In malarial fever, the temperature rarely rises to the height of endangering the life of the patient by immediate dissolution; and whilst in many cases of remittent and pernicious malarial fever the physician may be tempted to substitute the apparently more powerful antipyretic

agents, kairin and antipyrin, for the more slowly acting quinine, he may, without doubt, reduce the temperature of his patient rapidly by kairin and antipyrin, but this reduction will be attended with profound perspiration, and, in some cases, dangerous prostration.

When the remedies are withdrawn the fever returns, and it may be with increased violence.

Quinine has the power of inducing a permanent reduction of temperature by rendering the blood antiseptic against the malarial microbes and by its action on the cerebro-spinal and sympathetic nervous system. Antipyrin and kairin have not fulfilled the offices of quinine, and it would be a fatal mistake to substitute the use of these new remedies for that of the well-established virtues of sulphate of quinine.

[TO BE COMPLETED IN OCTOBER NUMBER, 1889.]

ART. VI.—The Death of a Cured Case of Tuberculosis Pulmonalis.

By JOHN ASHBURTON CUTTER, M. D , B. Sc., of New York City.

In the December number for 1888, of the *Virginia Medical Monthly*, appeared an article entitled, "Food versus Bacilli in Consumption (opus 286). An open letter from Ephraim Cutter, M. D., LL. D., to his son John Ashburton Cutter, M. D., etc., with Answer."

As the history of Case 5 given in my answer has recently terminated in death, I feel that those that read the article in question should have the privilege of reading the full account of this patient's life and death.

In May, 1887, Mrs. ———, aged 25, came to New York to go under our care. Her blood was tuberculous; the sputum had lung fibres and she was also suffering from an enlarged and engorged womb; the heart was hypertrophied. In one month of careful dieting and medication, her cough had disappeared, the lung gave evidence of healing, the blood morphology had become healthy, the heart beat easier,

and the womb was reduced to normal size. She was urged to stay with us, but the understanding was when she left home that she should return in one month. Her case had shown unusual progress, and the importance of remembering that she had done with her great resiliency more in a month than we usually accomplished in six, was told to her. (Her father and a sister had died of tubercle in 1872 and 1879, respectively; a paternal uncle, was a cured case of pretuberculosis, accomplished in 1878; hence her treatment by us.)

In July, my father saw her at her home in the West and applied a stem pessary to her womb; this she wore with comfort for four days, when driving in a carriage, the disc became displaced and she had to take away the instrument. During the summer she did fairly well; had been ordered to take much outdoor exercise; this she over-did; (there is such a thing as patients playing too hard as well as working too hard.) Again, the latter part of the summer unavoidable family troubles came up which worried her, and indifferent beef gave her diarrhœa, so that in the fall she had commenced to run down again. The middle of November, 1887, arrangements were completed for her to return to New York, which she did, *travelling alone;* she caught cold on the sleeping-car and had an attack of congestion of the lungs on arriving here; this set her back. Still she pulled out all right, and in January made up her mind to go home.

To judge of her condition, let me say that a few days before leaving, she walked with me to the top of the Metropolitan Opera House climbing over one hundred steps, so that she might hear little Josef Hoffman play. She was in good flesh; no cough. On reaching her home, she walked nearly a mile over an icy road up hill to her house *without fatigue.*

All went well for a while till her cook left her; then ensued a great deal of trouble in getting help; the patient had to go into the kitchen and cook for seven farm hands besides her family; I say, *had* to go into the kitchen; this is hardly the truth. The patient was a woman of fine family; her father had occupied the first position in his profession; her mother was highly cultivated and she (the patient) possessed one of those exquisite nervous systems that brooked at no delay; she loved to carry on her household with the utmost precision and with comfort to her family; indeed when her first child was in utero she had for one summer a

household of seventeen which she managed successfully. Her husband was deeply engrossed in the laborious occupation of handling a large stock farm, with an extensive and expensive plant of full-blood cattle and the apparatus needed on such a place. Neither he nor she realized the suicidal result of her working over a hot stove; so she in her great desire to keep things running smoothly, did the work she ought not to have done. If any one thinks cooking is easy work and comfortable, let him or her work over a hot stove and see how soon the head becomes heated. The first result of this cooking was an attack of congestion of the lung—the right one this time, not the left which was the one which had been implicated with tubercle. She then asked her attending physician to examine the left lung; this he did and pronounced it healthy. She came out from this attack of congestion, and later in the spring while driving, her boy, aged five years, had to get out of the carriage. While he was climbing in, the horse started and she pulled her son in by one hand and severely wrenched herself in the pelvic region, so that sharp pains came on in the womb; these were relieved by opium and iodoform per vaginam.

In May, 1888, I came to visit her after attending the meeting of the American Medical Association at Cincinnati. She was then without a servant and was cooking; did not feel well; was tired; had much pain in the top of the head; blood not normal but had some yeast present in spores, free and in masses. Five days later she was taken sick with chills in back, fever, rapid respiration, contracted pupils, vomiting, partial opisthotonos, headache and delirium. I tried the much lauded morphine treatment with the result that she grew worse; then applied leeches to the side of the head and purged her with forty grains of calomel; small doses of bisulphate quinine. These brought about healthy action, but the mischief had been done and we entered in on a race with death in which he finally came out ahead.

From a cheery, bright, hopeful person she became irritable, despondent and at times distrustful of her friends. It seemed as if all the good work that had been done by her and her physicians was thoroughly undone. She convalesced slowly. Her nervous system was so upset that she hated beef. We fed her with oysters, chicken, cream, milk warm from the cow, fish, etc. I made up my mind to stay with her and follow up the case closely. In August the cough began to slowly come back; increased, and despite my protestations and urgings that she live as she had done

before on beef alone, the poor sick woman was so shattered by the meningitis that she could not. Moreover, the womb, which had before this been only enlarged and displaced forwards or backwards, was prolapsed more or less at times, and there can be no doubt that the wrench received when she pulled the boy into the carriage had hurt her much. In September, the lung fibres began to appear in the sputum, and on the 15th of that month she had four hæmoptyses; they were finally controlled by the atomization of liquor persulphate of iron, one part to sixty-four of water, and the use of bugle weed and witch hazel internally; she again took to bed; said she was going to die; hectic fever came on; bright spots on cheeks; skin cold and sweaty; pulse 120. I felt the case was desperate and despite her prognostications of death, finally encouraged her so that she came down to close beef diet, broiled; (it makes me angry when educated physicians ask, "How do you do so much with raw beef?" The answer is, that "I never prescribe raw beef; do not care about filling up my patients with tape worms or giving them an extra job of digestion which proper cooking will accomplish.") For her cold skin and its sweaty condition, I used acid baths with salicin. There was crackling in the front of the left lung, and in the back could be heard the air bubbling amongst the mucus in a cavity. At this time I also used the primary current from a galvanic battery, in very small doses for the womb. It was truly wonderful to see how that woman's case improved on her close diet. In one week's time she was out of bed; was soon driving; the sweats stopped and the cough greatly diminished.

By the latter part of October, she was so much depressed by the malaria that was present, that I decided to make a change of climate, and on the 8th of November I took her to New York. The malaria, of course, was left behind and she improved. A few weeks before Christmas, she decided that she would make up a box of presents for her little children. We feared not only the brain work of choice and the labor of needle work, but that the home associations which would be brought up by these presents would demoralize her. Remember that she was in our family, but instead of the bright happy woman she had been on her previous stays with us, she would at times give way to fits of despondency out of which it was very hard work to get her; would take her to places of amusement and try to occupy her mind as much as possible so that the introspection

would be done away with. Our fears were fully realized; she had a very bad attack of homesickness, and her appetite for beef left her; we then gave her as much leeway as possible in her diet, with the result that the cough came back. The night sweats returned, the lung fibres again appeared in her sputum, and the bright spots on the cheeks showed that death was again making good time in the race. Christmas day was, perhaps, the most wretched one that this poor woman ever had. (Now I have been blamed for taking this patient away from her friends; it was called cruel, inhuman. Yet she went freely, as she knew that we were the only ones that had ever given her hope of getting well, and she had had evidence in the past that we had been able to do her good. Moreover, she was so situated that she could receive medical attention at any time.) That night I went into her room, and she said to me, "Doctor, I am going to put my appetite behind my back and eat the broiled chopped beef four times a day in my room; I do not want to see any other food." This was done and in four days she said to me, "That beef really begins to taste good to me." A few days after this she had an attack of congestion of the lower lobe of the left lung; this she speedily recovered from and her mother came on to be with her and keep away the homesickness. After the middle of January she never coughed again.

In September, 1888, I had noticed a swelling by her throat, said nothing about it, but later, when she began to complain of it, we examined and found that there was a well defined goitre; this would diminish and then increase, but after going on to rigid diet, it slowly disappeared and never bothered her any more.

March, 1889, she had a severe attack of pain in the left side, which extended up by the heart and down the arm. It puzzled us till we discovered at the sigmoid flexure of the colon a fibrous thickening of the bowel; the fæces were passed in small pieces, two inches long and half an inch wide, being flattened. Now this fibrous thickening was of the same nature as the excessive development of connective tissue in the thyroid gland before noticed. If the nutrition could be held on proper basis, nature in time would take it away as she had done with the goitre and as she had done in other cases of fibrous thickenings of the bowels. It must be remembered that such mal-developements in the bowels are of poorly vitalized tissue and very prone to pain. Here was a woman who had had her nervous system shattered by a

meningitis, tuberculous if you so please to call it, and it makes my position only the stronger. Our indication was to keep her comfortable, her bowels open and her nutrition as near to a healthy basis as possible.

So she was fed on beef with a little vegetable food; her bowels were kept open with small doses of chemically pure sulphate of soda and the pain was controlled as best as possible with sulphate of morphia under the skin. The first week in May, I took her with her mother and her little girl to the seashore at Buzzard's Bay, Massachusetts. Here she was doing quite well till the latter part of the month, when she became much worried over an unfortunate occurrence, and for three days about lost the balance of her mind; she was quieted with hyoscine; her husband came to her and it was decided that she had better return home and be with him. On the morning of the day we left, all went sailing and were caught in a lively squall of wind; this instead of frightening, brought her out of her melancholy.

I journeyed with her to Louisville; she was examined by Dr. W. W. Bolling, who told me that her lungs were softening in 1884 and that he considered the disease arrested.

Fourth of July, I received word that she would not live a week; so I made a hurried trip to Louisville and found that she had got upset and had lost ground. Her attending physician and I came to an understanding and I left her quite comfortable after a four days' stay. She rode out with me twice; the fibrous thickening at the sigmoid flexure was undoubtedly less than it had been since March. On my return home, she did well for two weeks; took less morphine; was easy in her mind; calm and trustful; but malaria attacked her and I still think there was some ptomaine poisoning from pure pepsin; at any rate, there came on an excessive fermentation, agonizing pain, and she gradually sank, dying on the 6th of August. Thus ended a brave life.

Conclusions.—1. This case had undoubtedly the tuberculous diathesis.

2. She had a fine mind, was of the nervous temperament and whatever she did, she did to the utmost of her ability, and at times wasted her life forces. Her mother often said to me, "Doctor, if my daughter is ever restored to health, she will wear herself out with work."

3. Some blame us for being so rigid in our dietary; they

ask why do you not give milk, eggs, cream, fats, etc.? Now this woman tried a pretty liberal diet after the meningitis with the result that she had hemoptyses and her lung was only repaired by rigid diet. It makes no difference to us what we give our patients—we want to cure them; and if our experience shows us that one food is better than another, we would be fools if we did not follow the indications. Many men criticise us for the way we handle consumption, but we look in vain for our critics to publish cases of cures *as well as the deaths*, as my father did in 1880 in the Transactions of the American Medical Association, in which he gave 70 cases, 27 of which were cures.

4. It takes nerve force to live; also to get well. This woman's lung was healed, in May, 1887, and in November, 1887; then came the terrible meningitis undoing everything; yet the lung was healed again in October after the hemoptyses, and when it broke down for the last time, in December, and she went on close diet, which she followed up closely to her death, cough ceased in January and was never heard again.

5. What evidence have I that her lung was healed, again and again? (*a.*) The examinations made at various times, the last in June, 1889, by my distinguished father, Dr. Ephraim Cutter. If any doubt his ability to make a correct diagnosis of lung lesions, then they must pass on the judgment of the Boylston prize committee of Harvard University, which in 1857, granted him a prize for his essay on "Under what Circumstances do the Usual Signs Furnished by Auscultation and Percussion prove Fallacious?" (*b.*) In February, 1888, she was examined by Dr. Beard, of Kentucky, who said her lung was healed. (*c.*) June, 1889, she was examined by Dr. Bolling, of Louisville, who gave the same testimony as before noted. (*d.*) Lastly my own, even if prejudiced (?) I was with her continuously from May, 1888, to June, 1889; saw her in the summer of 1888, when she could not live on the diet, go gradually down till the lungs necrosed; also witnessed the blood morphology peculiar to tuberculosis gradually increase till it was in its worst stage; I saw the blood morphology improved and become normal at the same time her lung did.

6. *If then this Case did not die of tuberculosis pulmonalis, what did she die of?*

Answer.—Though the lung was healed and bowel lesion was improved, she was simply so tired out with getting well so many times and fighting the pain, that when upset by the malaria and perhaps the ptomaine poisoning, life was snuffed out as a candle is.

In closing, let me pay a tribute to the bravery of this woman, who even after shattered by a meningitis, still fought for life.

The Ariston, Broadway and Fifty-fifth Street.

Note.—Those who would like more reading on the cure of tuberculosis, will find some valuable information in the *Transactions* of the American Medical Association for 1880, pp. 339–408. Here are contributed the histories of seventy cases by my father; seventeen non-arrests; twenty-six temporary arrests, and twenty-seven arrests. It is my belief that any one who reads this remarkable set of cases—taking those that died with those that were cured, and the prelude that my father gives to the article in question, in which he says he considers that consumption is a *curable disease*—will say that we had good reasons to hold on to this case as we did. Moreover, I think those that blamed us for saying that this woman was curable, both practitioners of medicine and laymen, who also said that they knew all about the matter and that nothing could be done for her, will now think that perhaps they have not comprehended the whole subject, and before passing opinion on a matter with which they were not fully acquainted, they should have visited or corresponded with some of the cases of permanent arrest. As the history now stands, *my patient*, with whom I fought death for months, is at rest; but the practitioner who says that her lung was not healed, and that tuberculosis is incurable, occupies a dangerous position, from the agnosticism of which I pray to be delivered, and trust when I am sick that I shall be treated by positive medicine, which is not afraid of death, but will use all its powers to comfort and cure me. J. A. C.

Art. VII.—Report of a Case of Ileo-Colostomy in which Cat-gut Mats were used for Approximation—Remarks.*

By JOHN D. S. DAVIS, M. D., of Birmingham, Alabama.

July 16th, 1889, 8 o'clock P. M., my brother, Dr. W. E. B. Davis, was called by Drs. Charles and C. T. Drennen to operate on Webster Gary, negro, aged forty-two years, furnace tender, for intestinal obstruction. He found the patient *in extremis;* temperature 101°, and pulse 135°. He made a diagnosis of peri-typhlitic abscess; suppurative peritonitis, and fæcal obstruction of the ileum, in the region of the ileo-cæcal valve; and he expressed the opinion that the man would die in a few hours regardless of any operation. He opened the abdomen from the symphysis to midway between umbilicus and ensiform appendix, and found a peri-typhlitic abscess; general peritonitis, due to rupture of abscess sac; compound flexion of the ileum bound by strong adhesions in the region of the ileo-cæcal valve, and fæcal impaction, accompanied by great distention of intestines above the seat of obstruction.

The abdominal cavity and abscess sac were thoroughly cleansed by irrigations with hot water. The ileum was opened near the point of obstruction and emptied of nearly one gallon of impacted fæces, liquids, etc. A second opening was made at the jejuno-ileum juncture to allow the escape of a large quantity of gas which was in the upper part of the bowel. These openings were closed by the Czerny-Lembert suture.

At this point in the operation the patient seemed to be holding up well; and to avoid *the necessity* of resorting to the formation of an artificial anus, I was requested to do an anastomosis by means of my approximation cat-gut mats, with the view of establishing the continuity of the intestinal canal.

The ileum above the seat of obstruction was brought in communication with the ascending colon below the point of obstruction by making an incision an inch and a half in length in both intestines at a point opposite the mesenteric attachments, and the visceral wounds carefully united by means of my approximation cat-gut mats. A cat-gut mat, to which was fastened four braided silk threads, was introduced through each opening into the intestines. The late-

*Reported before Jefferson County Medical Society, August 7th, 1889. (Stenographically reported by Joe Latham.)

ral sutures were passed through the margins of the wound to prevent ectropium of the sides of the incisions. After the mats and sutures were in place, the wounds were brought in contact and the four sutures tied, which accurately coaptated the serous surfaces of both bowels over an area corresponding to the size of the mats. This procedure occupied only three minutes. No outside safety sutures were made, as the approximation was perfect and the coaptation sutures well protected between the approximated serous surfaces. A glass drainage tube was fixed in the lower portion of the wound and the peritoneum closed by a continuous cat-gut suture. The incision in the abdominal wall was closed by interrupted silk sutures, and antiseptic dressing was applied.

The time occupied in the whole operation was sixty-five minutes.

The patient rallied nicely, was comfortable, and gave favorable signs of recovery for fourteen hours. Three hours after the operation was completed, the patient had a small fæcal operation, when a large quantity of gas passed per rectum. Temperature ten hours after operation 100°, and pulse 120°. Fourteen hours after operation, while unattended by the nurse, the patient attempted to get up by himself and died suddenly from exhaustion.

Necropsy two hours after death. Abdominal wound united. Omentum adherent to wound, at the points of operation and incisions. The anastomosis was perfect and the new opening sufficiently large to nearly equal in size the lumen of the ileum. Adhesions between the two serous surfaces of the bowel firm, and extended a little beyond the line of approximation, as you can see from this specimen removed during the autopsy.

While this was a desperate case for any operative interference, I am sure this patient's life was comfortably prolonged ten or twelve hours by the opening, emptying and washing out the abdominal cavity.

I regret that Drs. Drennen did not see the patient early enough to have been able to give him the benefit of the anastomosis at a time more favorable to recovery. Even at the late hour in his illness, at which the operation was performed, I do not think a better, safer and easier means for restoring the intestinal continuity could have been had.

The specimen which I have shown you clearly illustrates

the possibilities of the future popularity of intestinal anastomosis. I am not doubtful of the great advantages it possesses, when obstruction exists, over the tedious, difficult and often fatal operations of circular enterorrhaphy.

The mechanical principle is clear, the method is practicable, and the application has been clearly demonstrated.

Resections with circular enterorrhaphy, lateral apposition with suturing and plastic operations, though of little value, have had their day—the objection to them all being a dangerous consummation of time, long exposure to infection, frequent leakage and abscesses.

While the application of the principle indicated to man has yet been limited, the method offers advantages many times as great as the old operations in mortality, and can be done in one-sixth of the time.

Intestinal anastomosis, which originated which Maisonneuvre, undoubtedly appeals to the practical surgeon, and will find greater favor every day. And, it is no jejune proposition, that its appeal to favor rests on the technique of the operative procedure rather than upon the basis of inductive logic that has that mixture of a small amount of truth with a large amount of error which gives so many popular procedures their temporary plausibility and mischievous tendency.

Dr. Nicholas Senn has shown that anastomosis is practicable and satisfactory when the approximation is made by means of his decalcified bone plates—the outcome of his experimentations in lateral implantation and apposition.

The outcome of my experimentations in anastomosis has been an anastomosis by approximation cat-gut mats. They are quickly made to encircle any aperture, are quite absorbable and have the advantage of easy application. After many trials with decalcified bone plates by Dr. Nicholas Senn; cat-gut rings by Robert Abbé; and cat-gut mats, I am satisfied with the superiority of the cat-gut mats, as the results of my experimentations indicate. They are more absorbable than the decalcified bone plates; approximate more effectually than the cat-gut rings; and are easier made than

either. Hence they serve the best purpose for which they were intended.

Description for Making Cat-gut Mats.

For making a small size mat with an oval opening of six-eighths of an inch by one-third of an inch, begin by taking exactly one foot of a large raw cat-gut thread, the size of a counter cat-gut violin string. Place it in hot water for two minutes, until it thoroughly untwists itself; then wind the same upon itself so that the fourth layer completes the one foot. This frame or ring is then firmly clasped by four pairs of catch-artery forceps, one at each end and side; at the same time pulling the ring or frame out into an oblong shape. See (Fig. 1.) The weaving is then begun by means of a needle armed with a small green cat-gut thread, taking care to mat or weave the sides first, in in order to fix the oblong shape.

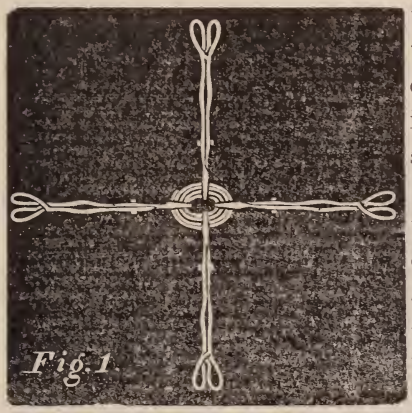


Fig. 1.

The suture is carried alternately over and under each rib, making the stitches as close together as possible —continuing thus around the entire ring until the mat is complete, care being taken to flatten each of the ends of the rib, in order to make the mat at this point correspond in size and width with the remainder. (See Fig. 2.) When the mats are made of the raw cat-gut in the above way, they may be made absolutely aseptic by placing them for a half hour in a one per cent. alcoholic solution of corrosive sublimate, to which has been added five per cent. of tartaric acid. They should then be placed on a cloth, wrung out of a 1 to 1.000 watery corrosive sublimate solution, until they have dried. They are then transferred to, and kept permanently in, the oil of juniper berries, or,

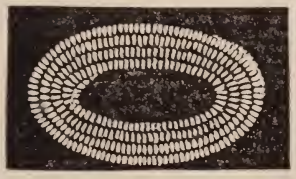


Fig. 2.

preferably, in a five per cent. alcohol solution of carbolic acid.

When it is desired to employ them, they are wiped with a towel which has been soaked in a 1 to 1.000 watery solution of corrosive sublimate, and placed for one-half hour in a 1 to 1.000 alcohol solution of corrosive sublimate.

While I prefer the cat-gut mats made from the raw catgut, as described, as superior to any other, it is sometimes necessary, for want of time, to prepare the mats at the time set for operating, when they may be made with ease and rapidity from the ordinary chromiated cat-gut found in the shops. The latter requires a little longer time for absorption, but answers the purpose admirably. The coaptation sutures of braided silk are fixed by simply passing a needle and thread between the two middle, or, when small, between the two inside ribs, and so returned as to loop two or three of the small cat-gut sutures used in weaving the ribs together. (See Fig. 3.) No amount of flexion and contortion will destroy their integrity when made from either form of catgut.

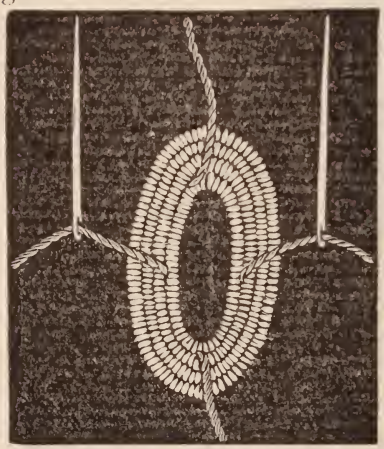


Fig. 3.

To bring the facts, which are so conclusively in favor of cat gut mats for intestinal anastomosis, within the limits of the few minutes allowed me for the discussion of the subject, I am compelled to leave out a detailed description of my experimentations in gastro-enterostomy, jejuno-ileostomy, ileo-colostomy, ileo-rectostomy, colo-colostomy, and colo-rectostomy.

I here exhibit a dog on which I have done three laparotomies. The first, omental grafting; the second, ileo-ileostomy, by means of lateral approximation with my catgut mats; and the third, resection of 18 inches of ileum (containing omental grafting and ileo-ileostomy), and a

second anastomosis by lateral approximation with the cat-gut mats. Dog, weight 25 pounds, aged 3 years. I used commercial chloroform for anæsthesia.

June 28th.—Ileum was looped and button-holed with the view of approximation by cat-gut mats. My assistant, Dr. Hickman, dropped the mats into a slop bucket, by accident, and I could not use them. The incisions in the intestine were closed by Czerney-Lembert suture and protected by omental grafts—the latter to demonstrate to some physicians present the advantage of this method when additional security is desired, as in gun-shot wounds, resections, contusions, lacerations, etc. The peritoneum was closed by a continuous cat-gut suture. The superficial wound was closed by interrupted silk sutures. The wound was dressed antiseptically.

On the second day, the dog had a fight with a larger dog, during which the external wound was torn open.

Stitches were removed on the third day, and the wound left to close by granulation.

July 6th.—(Eight days later.) Ileo-ileostomy was done by flexing the ileum, and, after incising both sides, this wound was brought in apposition by cat-gut mats, which were tied together with braided threads of silk. The dog did well. Remnants of the cat-gut mats passed on the second day, one early in the morning and the other late in the afternoon of the second day, 42 and 51 hours respectively after operation.

I here show you the mats as passed, except that they were then soft; they are now dry and hard. You see they were nearly all absorbed away, only enough of the ring of the second being left to barely recognize it.

The dog's recovery was without an untoward symptom. He ate and drank what he wanted, and fought on the third, fourth, fifth and sixth days.

July 16th.—The dog was again anæsthetized with commercial chloroform, and ileo-ileostomy was performed by resecting 18 inches of the ileum above the ileo-cæcal region, including the omental grafting and anastomosis. I show you here the specimen. The opening is equal in size to the calibre of the ileum or a little larger. Both ends of the divided bowel were closed by invagination and continuous sutures of small silk, and the continuity established by incising the lateral surfaces of both ends and approximating

the wounds by cat-gut mats, tied together by silk sutures. Four interrupted silk sutures were applied beyond the points of approximation ligatures. The dog has done well and is now in good health, 23 days after the last operation. The mats have never passed.

I could recite other experiments, but time will not permit.

The cat-gut mats made from the raw cat-gut tissue will absorb away in from 40 to 70 hours When doing a gastro-enterostomy, it is necessary to have the frames made from a larger cat-gut violin string, double the size of the ordinary counter violin string used for making the frames of mats to be used elsewhere in the intestinal track, owing to the protection necessary against the ready action of the gastric fluid. In these plates the coaptation threads should include the second inside rib to give greater security and permanency to the coaptation. While I have met with no failure in the other method of the attachment to the intra-gastric mat, I would not do the operation on man without resorting to this extra precautionary safe attachment to one of the ribs.

Cat-gut mats are quite as absorbable as Senn's decalcified bone plates; they are more easily and quickly made, as readily applied, and have the advantages for securing the threads for coaptation that can never be attained in the attachment of the coaptation threads to the bone plates. When the bone plates are not on hand for immediate use, the making of them (which requires four or five days), or sending to distant cities for them, would be a serious delay; while the cat-gut mats can be made of any size, in less than an hour—advantages which must appeal to every surgeon.

Clinical Reports.

Puerperal Convulsions—Presentation of Hands and Feet Corrected—Forceps Delivery—Intermittent Malarial Puerperal (?) Fever.

By T. P. BAILEY, M. D., of Georgetown, S. C.

On the 23rd December, 1888, I was summoned to see Mrs. C. W. S., a primipara, about 21 years of age, who was about nine months gone in pregnancy. She was suffering very

much from a violent spasmodic colic—the result of a meal which had disagreed with her. There was some nausea and vomiting, with intense spasmodic pains, but nothing referable to uterine contractions. Sulphate of morphia one-fourth grain was administered hypodermically, and she was soon comfortable. The next morning, to my surprise, I found her as well as usual, with the exception of a slight headache. A saline aperient was ordered and I dismissed the case.

On the evening of the 24th, I was summoned in haste to Mrs. S, and found her in a strong convulsion, which passed off and returned in a few minutes. Chloroform was immediately administered by inhalation. The condition of the os uteri indicated dilatation high up in the superior strait. I determined to continue the chloroform inhalations from time to time and await events. This seemed to control the convulsions; she returned to consciousness, and a mixture of chloral and bromide of potassium was given to secure rest and to be repeated at short intervals, if there should be any tendency to convulsion.

Mrs. S had several threats, but for the most part, passed the remainder of the night and the next day in comparative comfort.

On the night of the 25th, labor pains set in. The uterus was gradually dilating, and there was no return of convulsion. It was impossible to make out the precise presentation, but it was not cephalic. The pains were feeble, and the os slow in dilating, but the membranes ruptured rather sooner than necessary, and I was cognizant of a rather unique state of affairs. At first, I supposed that I had to deal with an ordinary footling, which was the extremity then presenting. After the labor had progressed, I made out another extremity, which was evidently a hand, and bye and bye the cord prolapsed, while the head had receded in such a way that it could not be designated. Under the influence of chloroform, I tried to bring down the feet, but without success. The whole fœtus was firmly doubled up and impacted, and it was a problem as to what course I should pursue. I determined to make the effort to push back the feet during the intervals between the pains, with the hope that it might be converted into a cephalic presentation, when after a long and persistent effort, I had the gratification of finding the head with vertex to the right, and I felt great relief in consequence. This gradually descended while the extremities receded, and I had the pleasure of find-

ing the head engaging. The pains, however, began to diminish, and symptoms of exhaustion setting in, I promptly delivered her with the forceps of a dead fœtus weighing between nine and ten pounds. Placenta soon followed, the uterus contracted firmly and I left the patient comfortable.

As the case was a peculiar one and very tedious, going through a duration of forty-eight hours, I feared the possibility of puerperal septicæmia, and accordingly took every precaution in the way of antiseptic treatment. For some four days, Mrs. S did exceedingly well and convalescence *seemed* to be well established, but my surprise cannot be measured, when I was summoned on the fifth night after the event, and found her with a severe chill, and violent pain in the hypogastrium, followed by high fever with a temperature of 105° F. This looked like a septic condition, and although I feared such an invasion, I was nevertheless surprised, as there had been no reason for such an event. The lochia had been normal as to quantity, quality and odor, and was then sparing, but there had been a postponement of the lacteal secretion, and I supposed this was the real trouble, as this function had suddenly appeared and was calculated to bring on some perturbation of the system. Some powders of potassium bromide, compound ipecac powder and sodium bicarbonate were administered, which had the effect of relieving the pain, and the temperature also reduced. She was then given quinia in large antipyretic doses, alternating with an occasional dose of antifebrin. This condition lasted about a week ; all pain about the hypogastrium ceased, and there appeared to be complete defervescence, when I was suddenly called to see Mrs. S in a severe ague. I soon had on hand one of the most stubborn forms of malarial intermittent fever I have ever dealt with, as variable as it was intractable. Upon enquiry into her history, I learned that before her marriage she had been treated for several months for malarial fever.

Without entering into further particulars, I will state that for about two months, I used all of the vaunted remedies for chronic malarial fever before she was thoroughly convalescent, and it is impossible to say which remedy was victor, but it yielded for the most part to quinine, arsenic, iron and iodide potassium.

Remarks.—The first matter of interest to be noted in this case, was the peculiar presentation. Ramsbotham, perhaps, gives about as good a history as we can find of this particu-

lar class of cases, in which he says, "sometimes the hands, a foot and the funis offer themselves at the os uteri. * *. I have known some few instances in which the head, a foot and a hand were all presenting at the same time." This seems to have been mostly the condition in this case; but it was impossible to effect turning and I was rejoiced to find my efforts crowned with success in pushing the hand and foot above the brim and allowing the head to descend.

Another peculiarity was the puerperal condition, complicated with malarial impressions in such manner as to indicate a septicæmia, which necessarily alarmed me. I have seen this complication so often in malarial districts of country that on the principle of the hackneyed phrase "a burnt child dreads the fire," I always enjoin upon my patients the importance of the administration of quinia for at least three days after parturition.

Case of Multiple Amnia (or Hydramnia?)

By BEN. H. BRODNAX, M. D., of Brodnax, La.

I was called to see a lady whose husband *en route* to his home with me stated that "the bag of waters had broken and had been dribbling away for two or three hours."

On arrival and examination I found the head of the child presenting, but in front of it the usual tightly distended pouch of amnion, filled with fluid, and very low in the pelvis; at the same time every contraction would force out a jet of fluid through the vagina.

As the head had descended, I punctured the protruding sack, with the usual gush of fluid, and the next contraction brought the spirt as before, pressure increasing its amount and velocity.

On the head coming out, a mass followed which looked like an empty bladder, and fell upon the bed. Then followed the body of the child, and shortly afterwards the placenta and attachments.

On examining the latter, I found that the amnion contained on one side a closed pocket, in which still remained about a pint of fluid.

The mass that followed the head was found to be an empty membranous bag, with a small hole in one end. On

inflation it looked as if it would hold about three quarts of fluid, and was in structure exactly similar to the amnion proper and had a seam on one side, six inches long, that corresponded to a similar seam on the side of the amnion, to which it must have been attached while in the womb. Here was the explanation of the dribbling and spirts of fluid. Thus there were three distinct sacks containing fluid; first, the one that held the child, second, the pocket in its side, that contained about a pint of fluid, and third, the one which followed the head which had contained about three quarts of fluid and nothing else.

I have had one case of hydramnion, but the excess of fluid, about a large water bucket full, was all, with the child in one sack.

Correspondence.

Radical Cure of Fistula in Ano and Hæmorrhoids by Electricity.

Dear Editor,—I would call the attention of the profession to more rapid methods of curing fistula in ano and hæmorrhoids, coupled with safety, and their radical extermination.

Having devoted years to this branch of the healing art, many times with tedious and unsatisfactory results, employing the much talked of Brinkerhoff and other methods, I now challenge the world to compare results with the methods I now use in the cure of fistula in ano, be there one or a dozen openings. I employ an electrolytic battery of about 12 ampere power with sufficient of the cautery element to subdue any hæmorrhage that may perchance occur. My portable battery that I take to the patient's house is about 8 inches by 10 long and 10 inches high, with 2 cells, and built chiefly for quantity, charging it with tri-oxide of chromium and sulphuric acid. The method of procedure is this: The battery is first charged, and the patient's bowels thoroughly emptied by means of an astringent injection. I then place the patient on his side, and, with the Shotwell rectoscope or other suitable speculum, the inner opening is located, or, if it

be an external, incomplete fistula, the side opening of the rectoscope is so turned that the possible opening is in view—the patient is of course under the influence of an anæsthetic. I then straighten out the fistulous track next nearest the anus, with a stiff steel probe of sufficient length, having an eye near its introductory end; and if the sinus does not quite open into the bowel, perforate the intervening tissue till the eye of the probe is distinctly seen in the rectoscope; and leaving it there, I next introduce a lance-pointed probe, having also an eye near its end about three-eighths of an inch farther from the anus, into the solid structure and parallel with the fistulous track till its eye is also seen penetrating the bowel in the opening of the rectoscope. The eyes of both probes are then threaded with the opposite ends of a No. 24 platinum wire about 10 inches in length, and both probes are then withdrawn, leaving the wire *in situ*, forming a loop. Both ends are now secured to an electrode, the electric current turned on, and the loop drawn through the partition, in its passage destroying the membrane which lines the fistulous track. No dressing is necessary, as it is well known that no wound heals more kindly than those made by a battery. The bowels, however, must be kept locked up for at least a week—longer is better—when the patient gets up a well man, complete union taking place by first intention.

The above method I have employed in many instances with complete success. In hæmorrhoids and prolapsus ani, I employ a similar treatment, no matter how large the protrusion nor how long the patient has suffered, first bringing the growths all outside the anus; and in one treatment of a few moments the work is done and is always successful, followed by no hæmorrhage or unpleasant symptoms or pain. And should your many readers desire further information, I shall be only too glad to give the same gratis to all who may apply, by addressing me at Grand Rapids, Mich.

Respectfully yours,

W. S. Shotwell, M. D.

Grand Rapids, Mich., July 30, 1889.

Original Translations.

From the French. By R. M. SLAUGHTER, M. D., Theological Seminary, Va.

The Diarrhœa of Children—Cholera Infantum.

Dr. Critzman treats this important subject at length in *La Tribune Médicale* (June 27 and July 4 and 18, 1889). Speaking in the beginning of the importance and fatality of the gastro-intestinal affections of children, and their increased frequency in summer, he passes on to a description of cholera infantum. The characteristics of the disease are as follows: An infant, weaned or not, and having or not having had premonitory digestive troubles, is suddenly taken with incoercible diarrhœa and vomiting. There may not be any vomiting, but diarrhœa there always is—continuous, incessant—irritating the buttocks and thighs, and causing erythematous eruptions which simulate and may be mistaken for the erythematous thigh eruptions of new-born syphilitics. This continuous loss causes in the child great thirst, which cannot be satisfied, from the fact that everything taken is thrown out by stomach or bowels. The facies become abdominal, the features drawn, the nose pinched, and the eyes surrounded by a bluish circle. The child moves incessantly on account of the colliquative pains, and next may come a stage of immobility and depression, of bad augury. In fact, the child may quickly pass into a state of collapse, the mucous surfaces becoming cyanosed, the voice weakening, the respiration slowing, and the body becoming cold. Coma succeeds collapse, and death coma. Death may occur in eight hours after the beginning of the diarrhœa, and generally children do not resist longer than 24 hours.

The beginning is then often sudden, though sometimes there are previous digestive troubles, which prepare the soil. The nature of the disease cannot be known before the appearance of the diarrhœa and vomiting.

Vomiting does not always occur, and this is most often the case in nursing infants. When it exists, it has the characteristic of being increased by all kinds of liquid food. In the beginning, the character of vomit is purely alimentary, becoming glairy, viscid, and sometimes tinged with bile, and containing protoplasmic granulations, epithelial cells, and different species of microörganisms. It is, however, the

diarrhœa which plays the chief part in the clinical tableau. The actions are very frequent, and stools, colorless in the beginning, deepen in color as the bowel is emptied, becoming yellow or green. These biliary stools are due to true congestion of the liver. Solid deposits are never found, and it is only toward the end of the disease that there can be found elements showing abundant desquamation of the intestinal epithelium, and it is thus the greyish viscid stools of the beginning become green. According to some German authors, this green tint is due to the action of the alkaline secretion of the intestine upon the coloring matters of the bile, and yet in the beginning the stools are strongly acid, and become neutral only toward the end of the disease.

The tongue from the beginning is dry and almost always coated (*saburral*), and soon becomes extremely dry.

The stomach may be in the beginning distended, but this does not last. The belly falls and becomes soft and flabby. The abdominal pains, at first quite severe, become more so, the child continually tossing about and crying. It rubs its legs and heels together until abrasions occur.

The urine rarely contains albumen.

The temperature furnishes a symptom of great importance. The rectal (*central*) temperature is always elevated, while on the contrary the axillary (*peripheral*) temperature is low, and in all cases much lower than the central.

Such are the symptoms of the first stage. The second is that of collapse and algidity. Are these two phenomena due to intense dehydration of the blood, or to the absorption of ptomaines elaborated by the microbes multiplying in the intestine? Be that as it may, the face of the child becomes agonized in expression, the nares pulverulent, the fontanelles, especially the anterior, depressed, and the child cold. This coldness is absolutely peripheral, for the rectal temperature is above normal. At this period the child is rigid, but by no means cyanosed. In the case of the child we do not find the cholera blue. Dyspnœa is a constant symptom, slight at first, but increasing. The dyspnœa is a chemical one; for, while the respiratory passages are widely open, the respiration becomes more and more difficult. The expired air is cold. The cardiac impulse is weak, and the beats of the heart may be so slow as to be hardly perceptible. The pulse rate 80, 60, or even 30 per minute.

In spite of all these alarming symptoms the child does not seem to waste, but the skin has a peculiar softness, and it has been said that the subcutaneous fatty layer coagu-

lates, and that the appearance of the child is that of waxy induration of the skin.

As in œdema, the finger leaves an impression; the bedclothes sometimes mark remarkable arabesques upon the back of the little patient.

In reality the child wastes considerably, losing upon an average 100 grammes daily. This condition cannot last. Coma follows collapse, and is marked by contraction of the extremities, and the child dies gently—it ceases to live.

The disease may be divided into two great clinical classes:

1. *Choleraform, enteritis*, with predominance of diarrhœa.
2. *Choleraform, gastro-enteritis*, with predominance of vomiting.

These two forms are equally grave. The patient dies almost always in 18 to 24 hours, though sometimes the issue may be favorable. But when we say that cholera infantum kills more than half the children it attacks, a correct idea of the gravity of the prognosis may be formed. The disease is an infectious gastro-enteritis *par excellence*.

There may be at times, however, some difficulty in saying in case of diarrhœa whether it is a case of cholera infantum or simply a diarrhœa from some other cause. Diarrhœa in new-born children is sometimes physiological, and the stools often vary greatly in number, consistency, color, etc. Without sensible disturbance of health, the stools may become more numerous and liquid, less homogeneous, and containing white lumps or small greenish streaks; but there may be in these something of prodromic importance, and an indication that there is a threatening of disease. In fact, the diarrhœa of athrepsia (mal-assimilation) often begins in this way, particularly when it takes the form of the green diarrhœa of infants, which Parrot describes (*de l'Athrepsie*, p. 158) under the name of acute athrepsis. The stools increase in number very rapidly, and one of their most general characteristics is fluidity. Their color varies, sometimes remaining for a long time yellow, and often becoming rapidly green.

The cholera diarrhœa of children never, or almost never, has this marked green color, and besides has little odor, while the diarrhœa of acute athrepsis has a remarkably fœtid, nauseating and impregnating odor.

Another important differentiating characteristic is run of temperature. In acute athrepsia the temperature remains habitually below the normal, oscillating sometimes, but falling as death approaches.

The nature of the diarrhœa, the run of the temperature, the rapid wasting of the child, and the monkey-like expression, all serve to distinguish acute athrepsia from cholera infantum. In the latter, moreover, the diarrhœa is rarely ever fœtid, and is continuous, and the appearance of the child is that of a waxy induration of the skin, without wasting, apparent or real.

There is another form of diarrhœa, which Sevaistre has studied and named the enteritis of weaning-time, which presents some of the symptoms of cholera infantum and acute athrepsia. The distinction is easily made, from the fact that the enteritis of weaning-time attacks children of over one year generally. The clinical tableau is as follows: An infant of from one to two years is taken with a diarrhœa which is intense and well marked from the beginning. The stools, which number from six to ten a day, are copious, and composed of badly digested food, clots of milk, and yellow, very fœtid liquid matter. Sometimes, though rarely, there is vomiting. The belly is generally tympanitic, and especially so in the left hypochondriac region. There is no fever in the beginning, and it does not appear for several days, and at the same time the child begins to cough, showing a pulmonary complication. There is then an enteritis and a double broncho-pneumonia.

Another affection which sometimes simulates cholera infantum is invagination of the intestine, which is preceded for some days by an intense diarrhœa. The stools, however, are not serous, but muco-sanguinous or sanguinous. According to Ollivier, hæmorrhage from the rectum in an infant is pathognomonic of intestinal occlusion. The appearance of an abdominal tumor settles the question.

Simple diarrhœas of children are sometimes difficult of diagnosis, but are affections of long continuance, and are not of great importance unless they become chronic. In their early state they rarely give rise to a serious general condition, and if they kill, it is by cachexia and not by infection. There is always absence of algidity and collapse. Can a tubercular enteritis simulate cholera infantum? We think not. The intestinal form of infantile tuberculosis is rare or not known, and however great the intensity of the diarrhœa or the vomiting, the attentive physician will not be deceived, for it will always be found that there are at the same time symptoms of bronchitis or broncho-pneumonia, and that fever as well as the pulmonary symptoms have preceded the diarrhœa. The child is already cachectic.

Tubercular enteritis may be confounded with the enteritis of weaning-time of Sevaistre, but in the latter disease the diarrhœa precedes the pulmonary manifestations. It is an intestinal complication, and not a disease.

We have seen that in cholera infantum there are two distinct stages—the first characterized by digestive troubles, the second by grave general symptoms, such as collapse and algidity. In the first stage, the treatment must be addressed to the digestive troubles; in the second, the effort is to bring the child through the invading torpor, which nearly always ends in death.

The treatment to combat the digestive troubles is the much more important, for, when well applied, it often triumphs over the disease. Lesage, in his thesis, has traced the principles, and we will follow him:

Every child attacked with cholera infantum should be placed on absolute diet. Milk in any form is to be strictly proscribed, for it must not be forgotten it may render the vomiting most severe and grave.

For the incessant thirst, the child may be allowed teaspoonful of albuminized water or a little weak tea and rum. The drinks should always be iced. It is not until vomiting becomes infrequent and the diarrhœa less profuse that milk may be resumed. It may then be given iced in small quantities; but should the vomiting or diarrhœa increase, it must be stopped. Crushed ice given frequently has a good influence on the vomiting. The intestinal symptoms are most difficult to combat. The child suffers great pain, which should be relieved by opium, which also checks the peristaltic action of the bowels. Children are, however, very susceptible to opium, and the effect must be watched. Of course, collapse and algidity contra-indicate entirely the use of opium. The best preparation is paregoric. It may be used combined with rhatany, as follows:

℞ Extract of rhatany..... .....grs. viij—xv } According
Paregoric ....♏v—x } to age.
Mucilage of acacia.....ʒiss.

M. S. Teaspoonful every two hours.

We are fond of associating opium with salicylate of bismuth, as follows:

℞ Salicylate of bismuth..... grs. xv—xxx.
Sydenham's laudanum.....♏j—v.
Infusion of tea .... ʒij.
Syrup of raspberries..... ʒv.
Rum ....ʒiv—v

M. S. Teaspoonful every two hours.

Being an infectious disease, many antiseptics have been tried. We shall consider only two, calomel and lactic acid. We employ calomel in doses of $\frac{1}{12}$ to $\frac{1}{8}$ of grain every two hours, continued for 24 hours. Should collapse occur, it must be discontinued.

But, the veritable specific for cholera infantum is without doubt lactic acid, and in small doses it is never dangerous. It is an astringent and antiseptic both, and passes rapidly into the intestine and acidifies its surface. It should be used from the beginning of the disease. A two per cent. solution is generally strong enough.

℞ Lactic acid..... .....ɱxxxij.
Distilled water.
Syrup of raspberries.....āā ʒxiv.

M. S. Teaspoonful every 5, 10 or 30 minutes according to the frequency of the diarrhœa.

To this internal medication may be associated topical agents, such as poultices upon the abdomen; but a more energetic intervention may be found in large injections of boiled or borated water. The amount injected should not exceed 6½ ounces for 6 pounds of weight of child. In the beginning, the water should be warm, but with succeeding injections it may be heated to 86 to 90° F. These have the advantage of lessening pain and rendering the bowel less septic.

If the above treatment is vigorously carried out, the second stage may be suppressed; but too often the physician is not called in time, and when he arrives, finds the manifestations of collapse.

The only resort to bring the child out of the torpor is the hot mustard bath. The child should be put into a mustard bath of a temperature of 100° F. morning and evening, but should not be left in more than six minutes. It should then be rubbed dry with hot flannels and wrapped in hot cloths. According to Lesage, if the skin is not reddened by the immersion in the hot mustard bath, the prognosis is very bad. The child should be next surrounded by bottles of hot water and a hypodermic of ether given, or better, caffeine, which is an active remedy for children. It increases the activity of the heart and the diuresis.

℞ Citrate of caffeine.....grs. iv.
Old rum ....ʒv.
Malaga wine.....ʒj.
Syrup of raspberries.....ʒjss.

M. S. Teaspoonful every 15 minutes. Hypodermics of caffeine are only a last resort.

Hydrastis Canadensis in Uterine Disorders.

Givopiszew (*Thesis, St. Petersburg*, 1887), drawing his conclusions from a large number of clinical observations and experiments on animals, arrives at the following practical results:

Hydrastis canadensis is an excellent remedy for uterine hæmorrhages due to inflammation, and mal-positions, and also for those supervening upon the menopause and for menorrhagia and metrorrhagia. The uterine contractions caused by it are less severe than those caused by ergot. It produces no unpleasant results even when taken for a long time. It does not provoke gastro-intestinal troubles, but on the contrary, ameliorates existing dyspepsias.—*L'Union Méd du Can. May*, 1889.

Creasote in Phthisis.

M. Bouchoveff from his studies in the clinic of Koschlakoff, reaches the following conclusions as to the action of creasote in phthisis. (*Bul. de Therap*).

Under the influence of creasote, the assimilation of nitrogen is diminished.

The daily loss of weight in patient during the administration of creasote is less than before taking it.

To obtain the better results, large quantities should be given for a long time.

This last conclusion is not exaggerated.

The small doses of creasote usually prescribed are insufficient. The principal difficulty without doubt will be to obtain the tolerance of the stomach for large and continued doses.—*L'Union Méd. du Can. May*, 1889.

A New Caustic Paste.

Dr. Jules Félix, of Brussels, has introduced a caustic paste which he holds is free from the inconveniences of caustics in general and for which he claims the following advantages:

The pain produced by it is not intense, and very bearable. It produces a hard well marked eschar, which rapidly detaches itself, or is easily removed. Its action is modifying and markedly antiseptic. It is a powerful hæmostatic. It is easily handled and does not attack the hands of the operator. This caustic is neither fusible nor deliquescent and is easily and surely applied and remains in place as long as necessary, from 6 to 24 hours, according to intensity of action desired. The eschars are easily detached in a few days by glycerin dressings.

The following is the formula for making the paste:

℞ Starch..... .... 37 parts
Flour..... .....112 "
Bichloride of mercury..... ..... 1 "
Cloride of zinc, dry.....110 "
Iodol, pure..... 10 "
Croton chloral..... 10 "
Bromide of camphor..... 10 "
Acid carbolic (crystals)..... 10 "

Mix in a glass mortar and add sufficient distilled water to make a homogeneous paste free from lumps and of the consistence of putty. If handled with wet hands, it may be worked as desired. It keeps perfectly.—*L'Union Méd. du Can. May*, 1889.

Treatment of Renal Insufficiency.

In the treatment of renal insufficiency, says Huchard (*Rev. Gen. de Ther.*), two therapeutic indications are to be met.

1. The elimination of toxic substances must be favored, first through the kidneys and next through the intestines and skin.

2. By alimentary regimen, must be diminished the quantity of toxic substances introduced into the organism.

To fulfil the first indication resort is to be had to diuretics, (caffeine by hypodermic injection, the preparations of squill, etc.) Purgatives should often be employed, and here is a formula:

℞ Senna leaves digested in alcohol and powdered..... .....
Sublimed sulphur..... ...āā 6 parts
Powdered fennel.....
Powdered anise... .....āā 3 "
Pulv. cream of tartar. ..... 2 "
Pulv. glycyrrhiza..... 8 "
Powdered sugar.....25 "

M. S. Dessert-spoonful in a half-glass of water at night.

Another simple mixture is the following:

℞ Calcined magnesia.....
Flowers of sulphur.....āā ʒjss.

M. Make 20 powders. S. One powder to be taken every day.

The functional activity of the skin is to be assured by frictions, jaborandi, pilocarpine, vapor baths, etc.

To fulfil the second indication, it is necessary to suppress

all foods by use of which toxic substances may be introduced into the organism, such as meats and fish especially, which contain in considerable quantity ptomaines, and the meat soups, which are, as Gaucher expresses it, only solutions of poisons. Milk, eggs and vegetables must be prescribed.

As ptomaines are formed in the stomach the result of fermentation of food, a therapeutic indication arises to combat fermentation and to destroy toxic products. This indication may be met by use of water saturated with chloroform which has antiseptic properties, or by preparations of naphthol and salicylate of bismuth after the formula of Bouchard:

℞ Bouchard's naphthol ..... ʒij.
Salicylate of bismuth.....ʒiv.

M. Make 30 capsules. S: One capsule after each meal.

Or one of the following formula may be used:

℞ Bouchard's naphthol.....
Salicylate of bismuth.....
Magnesia.....āā grs. 77.

M. Make 20 capsules. S: One to be taken just before each meal.

℞ Salicylate of bismuth.....
Salicylate of magnesia.....
Benzoate of soda.....āā grs. 77.

M. Make 20 capsules. S: One capsule before each meal.
—*Le Practicien, July* 1, 1889.

From the German. By MOSES D. HOGE, Jr., M. D., Richmond, Va.

Distribution of Tuberculosis.

Cornet has recently reported to the Seventh Medical Congress (*Rundschau*, 18, H. 1889) his experiments extending over a period of two years, in the distribution of tuberculosis. He collected the dust from the walls on a moist sterilized sponge, then pressed out in bouillon and the liquid was injected into the abdominal cavity of guinea pigs. In this manner he examined twenty-one different rooms inhabited by consumptives, in seven Berlin hospitals. As a result, he found, out of ninety-four infected animals, fifty-three died of various diseases, and of the remaining forty-two twenty were tuberculous. Cornet has extended his observations to insane and orphan asylums, with similar results, in those

wards which contained consumptives. In almost every case in private dwellings, where the patients had used handkerchiefs instead of spittoons, the dust gave positive results when injected.

Inhalation of Sulphuric Acid in Tuberculosis.

In a large rag factory, in which a number of operatives were constantly inhaling the fumes of sulphuric acid, Aurial (*Rundschau*, 18, H. 1889) observed that the consumptives were much improved, and this induced him to treat this class of patients with its fumes. In one corner of a small and well-ventilated room, sulphur moistened with alcohol is ignited while the patient sits in the opposite corner and breathes rapidly. The vapor fills the room and causes coughing and oppression; the patient leaves when blue litmus paper begins to redden. In the beginning of the treatment, in order to overcome the exciting cough and oppressive feeling, Aurial usually adds a small quantity of powdered opium.

The inhalations are made morning and night, and after each one the patient takes exercise in the fresh air. He has treated with a good deal of success about seventy patients.

Prognosis of Heart Disease.

In a recent meeting of the Berlin Medical Society, Prof. Leyden (*Rundschau*, May, 1889,) spoke as follows: Since the days of Traube, the physical examination of the heart has vastly improved, and since the further knowledge of Oertel's hill-climbing, proper gymnastics and a scientific measurement of increase and waste of fluids, the therapeutics have been better. The prognosis of heart diseases is no longer as cloudy as when Corvisart said, that "the patient carried a poisoned arrow in his breast;" and the public has become more indifferent in regard to the diagnosis.

The chief reason for this is, only the most advanced and pronounced forms of the disease were recognized. The general opinion that people with heart disease die suddenly can now only be true of a limited number of cases. This view is true yet of insufficiency of valves of the aorta and for true arterio-sclerosis of the coronary artery. In all other cases, sudden death is very rare; even in mitral stenosis, the percentage is only one. Even in anæmic fatty-heart, in acute diseases and over-exertion, sudden death is equally seldom. Of prognostic importance comes—1. Age. Small children and the aged die frequently from heart-trouble which in youth are well-borne; for in old age, if there is sclerosis, the

probabilities are that the disease will not reach a certain point and stand still, but continue to advance. 2. An important fact to remember is that females give a much better prognosis than males. This is less apparent among the working classes, because they do about the same kind of manual labor that the men perform, but still even here the difference is well-marked. 3. The manner of living. Among people who are accustomed to perform heavy work the prognosis is bad, hence it is better among the private than among the hospital patients. Finally, it is important that the patient should "hold his own" mentally and morally. If digitalis is forbidden, then is the prognosis bad indeed.

Picrotoxine as Antidote to Morphine.

In the course of some experiments on various antidotes, Bokai says (*Rundschau*, May, 1889,) that picrotoxine is the most rational antidote to morphine. The two drugs have an opposite effect upon the breathing centre in the medulla oblongata, in that morphine paralyzes, and small doses of picrotoxine stimulates this centre. In morphine poisoning, the falling of the blood pressure is a matter of importance, and picrotoxine has the effect of stimulating the centre which regulates the blood pressure. He is also of the opinion that it will prove of great use in chloroform asphyxia.

Modification of the T Bandage.

Dr. George Degner, in a recent issue of the *Med. Monats*, gives a good practical modification for the perineal bandage. A strip of unbleached muslin two yards long and ten inches wide is torn in the middle about half its length. The split ends are passed over the shoulders and reach down below the navel in front; the broad end down to the last lumbar vertebra behind, where it is fastened by safety pins either to the waist-girdle or perineal bandage direct. It has been found to furnish much ease and comfort to the wearer, and can be worn either next the skin or over an under-shirt.

Salt in Diphtheria.

Dr. Seibert says (*Med. Monatschrift*, 1889,) that salt has been used for a long time in cleansing the nose and throat, but the solutions are not strong enough. The author came to the conclusion, from knowing how long pickling meat would keep, that it would also prove of benefit in diphtheria. For more than a year he has used the following method: A thick layer of salt is put on the handle of a small coffee-spoon, which is then carefully introduced, turned edgewise, and wiped off on the tonsil—this procedure being

repeated on the other side. Usually the fever, pain and swelling begin to subside after the first application.

Fowler's Solution in Warts.

The author, Dr. Pullin, has cured three cases of warts by the external application of from one to six drops of Fowler's solution of arsenic daily. In about two weeks the warts dried up and fell off. (*Rundschau*, 1889, H. 6.)

Picric Acid in Dermatitis.

Dr. Calvelli recommends picric acid in erysipelas, lymphangeitis and eczema. (*Rundschau*, 1889, H. 8.) In erysipelas migrous, accompanied by high fever, delirium and great prostration, its action is to relieve the pain and swelling; cuts short the attack, and reduces the fever. He uses a saturated watery solution according to the following:

℞. Acidi picrici.....5 ss.
Aquæ distillatæ.....℥ vj.
M. Sig.—Applied with a brush every two hours.

Analyses, Selections, etc.

Two Full-Term Births from One Mother Within Five Months of Each Other.

The *Richmond Dispatch Company* has favored us with the following report forwarded to the *Daily Dispatch* by its correspondent, who took pains to verify the facts some weeks ago, from Onancock, Accomac county, Va.:

Ellen Hall, a young colored woman residing here, gave birth one night about June 15, 1889, to a boy child, making the second one she has borne in the last five months. On the 16th day of last December, she gave birth to a boy child in the city of Baltimore, where she was then living, but as her condition appeared to be unchanged, she summoned a physician, who, after making an examination, informed her that she was still pregnant and would bear another child in the course of four or five months.

In the meantime, she came to Onancock to live with her father and mother, leaving her husband in Baltimore, where he is employed as a drayman. Five months and four days after she had borne her last child she gave birth to another bouncing boy who is larger and more robust than his older brother. Both are nine-months' children. They are both

living and doing well. Quite a number of persons have visited the house and gratified their curiosity by a peep at the mother and her babies. All the physicians of the town have been to see the children, and pronounce the case the most remarkable they have ever known, though one or two somewhat similar cases are said to be reported in the medical books. There is no doubt about this case, and the physicians here are preparing a report of it for the *Journal of the American Medical Association.*

Theory of Menstruation—Classification of Cases for Battey's Operation.

Dr. Robert Battey, of Rome, Ga., in his address before the South Carolina Medical Association (*Transactions* of 1889), stated that he had passed his 60th year of life. He thinks that his labors for the past 20 years have helped to unsettle certain questions which were formerly thought to be answered. During his College days, the magic eloquence of Dr. Charles D. Meigs drew beautiful pictures of the ovular theory of menstruation, and the doctrine was accepted by the medical world. But some of the details of that theory we have had to give up. The sequence of menstruation upon ovulation, for instance, Dr. Battey thinks has been conclusively disproven. Ovulation may long precede the first climacteric period, and may continue long subsequent to the second.

There is a great difference of opinion as to what is menstruation. When he asks, can a child menstruate in six months, a year, or in three years? one man answers yes, while another pooh-poohs the idea, and says, no. When he asks, can a woman of 75 years, who has long passed the climacteric, resume her menstrual functions? one answers yes, while another says, nonsense—it is preposterous. These gentlemen simply view the shield from opposite stand-points. We must unite on a common ground before we can make progress in the physiology of menstruation.

If the term, menstruation, means nothing more than a periodical discharge of blood, it has little significance. As thus defined, it may exist without the ovaries and Fallopian tubes, or without the ovaries, Fallopian tubes and uterus—neither being necessary to the function. He cited a curious case in his practice. A broken down woman, addicted to morphine habit, applied to have her ovaries taken out. After cutting through an immense roll of fat, he got into the belly. Both ovaries and tubes were buried in firm adhe-

sions. To separate them endangered hæmorrhage in the pelvis. Having promised the husband that he would not greatly imperil her life, he closed up the abdomen, and left her as she was. He and her husband kept her ignorant of what had been done, but she was fully impressed that both ovaries had been completely removed. Her progress was very gratifying. Pains and nervous disturbance ceased, and curiously she lost her menses and also her monthly molimen. This improvement continued six months, when her attending physician, feeling that cure was established, informed her that her ovaries had not been removed. Immediately her menses resumed their great flow, morphine was again taken, and some six months later she returned to Dr. Battey to have the operation completed. He then extirpated the ovaries completely, when the menses again ceased and cure was complete, and her husband having died, she plied her trade as an inmate of a bagnio with profit and pleasure.

Here we have the remarkable effect of mind upon body. This is no new thing; thus we see amenorrhœa occurring upon any sudden shock.

In 54 of his cases, carefully traced for years, there were 50 cases in which the menopause was full and complete, but in 4 cases the monthly sign of the blooded flow from the uterus occurred and continued for some length of time; yet these 4 cases cannot be fairly used as exceptions to the law of the ovular theory of menstruation, since it is a singular fact that in the recorded autopsies of our large hospitals as high as six per cent. of supernumerary ovaries has been observed. These supernumerary ovaries are very common in the lower animals. Dr. Battey has found them in 3 of his cases; there was unmistakable presence of a third, and even a fourth ovary in one case.

A few years ago attention was approvingly drawn by Lawson Tait to the supposed influence of the tubes over menstruation, and it was advocated that they exercised greater influence than the ovaries. Dr. Battey has, however, often extirpated the tubes with the ovaries, but has never perceived any influence whatever upon the menstrual function that is fairly dependent upon the tubes. Even Mr. Tait has now ceased to attach importance to the tubular theory of menstruation.

Up to twenty years ago, when he began to operate, Dr. Battey accepted the ovular theory of menstruation in all its completeness. After making a number of operations—ex-

tirpating both ovaries—he was surprised to find recurrences of menstruation. Then he discovered a case of supernumerary ovary, when he thought he could understand the continuance of menstruation. But whether supernumerary ovary theory will fully and satisfactorily explain the continuance of this pseudo-menstruation remains to be proven.

English authorities especially are yet unsettled as to the justifiability of the extirpation of the ovaries solely for the purpose of effecting a change of life for the cure of diseases. Many hold that the operation is only justifiable for the removal of positive disease, apparent in the ovaries. Mr. Tait denies that "change of life" has anything to do with the accomplishment of cure of the diseases for which we operate. But Dr. Battey still believes that change of life is the great thing we seek. The fact that he does not always get immediate results from the operation does not dismay him at all. For when he analyzes the results of Mr. Tait and others, he finds that they get no more prompt results than he does. With them one, two or three years elapse before their desired results occur—time long enough for the setting up of this cyclical process that Dr. Battey contends goes on in the female organs, and which is the essential element of cure. Hence he holds his ground as to his theory and practice so as to accomplish a "change of life." He believes that the modified ovular theory of menstruation is founded in truth, and will eventually be fixed amongst the principles of physiology.

Dr. Battey classifies the application of his operation into three classes of patients:

1. *Cases of simple neuroses, oöphoralgia and various like nervous disturbances.* He mentioned in illustration two cases sent him from South Carolina. One, a young lady entering upon womanhood, had been an invalid with spinal disease, who had been for several years under many physicians in New York and elsewhere. The tatooed condition of her spinal column showed how much cupping had been done, and yet there was ample evidence of chronic oöphoritis—that it was a typical case of oöphoralgia with accompanying complications. But she came to the doctor on crutches as a case of spinal disease with some ovarian troubles. He extirpated her ovaries, and in a month she returned home in health and happiness, and her cure has been complete. She is a perfect woman intellectually and socially—simply her procreative power is gone. The *second* case was one of oöpho-

romania of recent date, but the case is progressing encouragingly and promises well.

2. There seems to be a wide difference in results obtained by Dr. Battey and other operators in the department of *ovaro-epilepsy*. His experience has been peculiarly gratifying—9 out of 10 of his cases having been completely cured of their epileptic form of seizures. Probably this may be due to the great care he exercises in the selection of his cases. Epileptics frequently come to him to have their ovaries removed. But unless he can see epilepsy growing out of the perverted function of the ovaries, he will not extirpate them. One of his cases was of very long standing. The epileptic seizures had been going on so long and frequent that he doubted the efficacy of his operation to cure. But she recovered completely after the operation. Two years later, however, the epileptic condition returned, and so violent were the seizures that she speedily died. It is a remarkable physiological and pathological fact that the epilepsy was relieved at once and for two years after the operation.

3. *Cases of oöphoro-mania.* At first his results were unsatisfactory and scarcely more than palliative, for the reason that alienists then turned over to him only their long-standing and incurable cases. Yet one patient who had been in an insane asylum improved sufficiently to be kept at home without restraint, and of late years her mind, though still weak, is pretty thoroughly balanced. About two years ago he operated upon a moody melancholic, which alienists regard with disfavor, and she is now well. More recently, he operated upon another moody melancholic who was steadily growing worse, but who, since the removal of her ovaries, has certainly been very much improved.

Horse-Nettle (Solanum Carolinense) in Convulsive Disorders.

In the *Transactions of the South Carolina Medical Association*, 1889, Dr. J. L. Napier, of Blenheim, S. C., says that during the summer of 1887 he read of horse nettle, and heard of it having been used among the negroes for fits and epilepsy. To test it he used it in the case of a woman who had epilepsy most of her life. During her menstrual periods she was generally in an epileptic condition. After trying various remedies for her epileptic condition without success, he gave her horse nettle, administering it to her steeped in whiskey, a tablespoonful three times a day, and continued it for months. Three days after taking it she was threaten-

ed with a convulsion, but she has had no sign of an attack from that day to this.

He had also used it in four other cases with marked benefit. In two cases there had been no return of the convulsions. Another case was that of a dwarfed, ill-formed child, that had had epilepsy all of its life. Some time before he had had typhoid fever and had never recovered from its effects, but went into a decline. Its convulsions became oftener and harder, and occurred repeatedly during the twenty-four hours. He had used the bromides to control the convulsions, but they had no effect at all. Finally, he put the child on the tincture of horse-nettle, and after that it never had any more convulsions. He had used it with marked success in the case of a pregnant woman with *convulsions due to albuminuria*, and had also found it beneficial in *hysterical convulsions* in the case of a woman who had the seizures at her menstrual period.

The plant grows abundantly all through the country, and he was so struck with its efficacy that in order to get it further experimented with, he wrote to the editors of the *Medical World* and asked them to experiment with it. They selected Dr. Taylor, one of their editors, for this purpose, and the result of his investigations were shown in the following extract from the *Medical World*:

"We had Mr. Louis Genois, apothecary of this city, to prepare us a twenty per cent. tincture from the berries sent us. With this, experiments have been made which, so far, have given great promise. * * * * The dose of the twenty per cent. tincture is from ten drops to a drachm, commencing wtth the smaller dose and gradually increasing, with a view to obtaining just the physiological effects =a feeling of drowsiness. "We believe that the poisonous dose and properties of the drug have not yet been made out." In answer to an inquiry from Dr. F. P. Porcher for the botanical name of the horse-nettle, Dr. Napier said that it was *solanum carolinense*.

Dr. Patterson said that seventeen or eighteen years ago, he remembered having seen something about horse-nettle used with a great deal of success in uterine hemorrhage, but that this was the only allusion to the plant that he remembered.

Dr. F. P. Porcher explained that the plant referred to by Dr. Patterson was the stinging nettle, *urtica urens*, which was a powerful styptic, and he had used it to arrest hemorrhage. Dr. Porcher also stated that the botanical relations

of the horse-nettle were such that it might be possessed of the most active properties. Its properties and uses were referred to in his volume of "*Resources Southern Fields and Forests.*"

Mercuric Bichloride in a Scrofulous (?) Class of Children.

Dr. Henry Dickson Bruns, New Orleans, La., says (New Orleans *Med. & Surg. Jour.*, August, 1889): A class of children, evidently anæmic and suffering from some fault of nutrition, but in whose cases iron in the various forms does but little good, often come under our observation. These little patients are flabby-faced, fairly plump, usually light-eyed, with fair hair and skins; they are thick-lipped; one or two of the cervical glands may be enlarged and their incisors teeth are defective, as a rule showing "tidal marks." They are pale and languid, but often mentally bright. In our eye and ear clinics, they present themselves with running noses, phlyctenular keratitis or conjunctivitis, blepharitis marginalis or otorrhœa. In a word, they belong to that class usually designated by the somewhat vague term "scrofulous." But in many individuals the ear-marks of the so called diathesis are wanting, and a careless or routine diagnostician would fail to classify them. All that we can observe is that while these children are not thin or puny they are pale and patently out of health. Occasionally we are first led to observe the child more closely by the failure of a long-continued course of the ferruginous tonics to do good. In the frankly scrofulous cases we prescribe the syrup of the iodide of iron, cod-liver oil, the hypophosphites, etc., but with most disappointing results. These patients form a separate group from those whom we point out unhesitatingly as the victims of secondary or inherited syphilis —little people with swollen tibiæ, interstitial keratitis and Hutchinson's teeth.

Of late years, Dr Bruns has treated all these patients, whether the signs of scrofula were well marked or scarcely discernible, with small doses of bichloride of mercury, *occasionally* combined with equally small quantities of potassium iodide; and with far better results, than he ever derived from the syrup of the iodide of iron, cod-liver oil and all that genus. The doses of the bichloride varied from gr. $\frac{1}{40}$ to gr. $\frac{1}{36}$, and of the iodide of potassium from gr. j to gr. ij, repeated twice or thrice a day; under this regimen these children rapidly gain color, flesh and vivacity.

How is this brought about? Our knowledge of the physiological action of mercury and iodide of potash is less

definite and thorough than we could wish. This much at least seems fairly well determined, that mercury and the iodides increase waste tissue metamorphoses, and especially possess the power of breaking down and thereby aiding in the carrying off of newly-formed lymphatic syphilitic deposits, etc. That is to say, these drugs hasten the death and breaking down into those simpler compounds necessary to insure easy and rapid elimination of all organic elements, but especially, of course, of the rapidly made and therefore improperly organized and weak products of disease. This is confirmed, by the unusual experience of clinicians, by the emaciation which follows the long-continued use of the drugs, by the fact that iodine is set free at certain points of elimination (*e. g.*, eyes, nose and mouth); that mercury in large doses diminishes the number of the red blood corpuscles, and that the albuminate of mercury added to blood outside of the body destroys these corpuscles. Indeed this therapeutic action is what we should expect from such elements as mercury and iodine, and their compounds with chlorine and potassium. Contrary to what we should expect, however, mercury and iodine but slightly increase the elimination of urea; a fact of which Bartholow probably offers the correct explanation when he says: "The products of the increased waste of the tissues caused by mercury are also largely eliminated by the intestinal glands."

Now observe that the class of patients of whom he has been speaking, while usually pale, are rarely thin. The physiological chemistry of these individuals is so deranged that while all the conditions necessary to constructive metamorphosis, tissue building, are in fair condition, the process of retrograde metamorphosis, tissue destruction, is impaired. The tissues of such persons may be likened to a lot now occupied by a dilapidated building, but upon which it is desired to erect a fine new house; before the new edifice can be constructed, the old one must be pulled down and removed. Perhaps it would be a more exact figure to say that the scrofulous body resembles a structure we wish to repair, but cannot, because, although an abundance of new bricks, mortar and timbers are at hand, we are without means to take out and carry away the old material.

In such a body, the nutritive material is present in sufficient quantity and is well supplied to all parts, but those processes by which the old cells are chemically changed, broken down and their detritus removed, are in abeyance. The old inactive cells linger too long in positions that should have been occupied by young and energetic ones, and as a

consequence in time the whole organism suffers. There can be little doubt that the lymphatic system is greatly in fault in all this. The introduction of the active agents, mercury, chlorine, iodine and potassium, into the blood brings about a change in the vital chemistry, and a change, it seems highly probable, favorable to retrograde metamorphosis. These agents also, it seems reasonable to suppose in the light of our present knowledge, stimulate the lymphatic system. Mercury increases the red blood corpuscles, because it breaks down the old ones, thus making room for new; while at the same time it stimulates the blood-making organs—for the most part, we imagine, lymphatic.

Hydrochlorate of Pilocarpine Specific for Hepatogenous Jaundice.

In the Polish monthly, *Nowing Lekarskie*, May, 1889, p. 230, Dr. Wl. Witkowski, of Ostrov, writes that hydrochlorate of pilocarpine represents a specific remedy for simple hepatogenous jaundice, except cases of malignant or benign new growths of the liver. He uses the drug hypodermically, in the shape of a 2 per cent. solution, of which he injects a (Pravaz) syringeful once a day in delicate persons, and twice daily in stronger ones. From the fourth or fifth day of the treatment, the individual dose is increased to one-and-a-half syringeful. All subjective symptoms (intolerable itching of the skin, hepatic and gastric pain, etc) are strikingly alleviated, even after the very first injection. Catarrh of the stomach, duodenum and biliary ducts and jaundice disappear in from one to three weeks. The most striking results are observed in cases of inveterate severe catarrhal jaundice of several months' standing, in which all ordinary means fail to bring any relief to itching, hepatic colics and gastric spasms. On the other hand, in such cases where the pilocarpine treatment does not bring about any improvement in the course of from ten to fourteen days, the practitioner can be pretty sure that he has to deal, not with simple icterus, but with a case of malignant disease of the liver, as a subsequent course of events will prove. Hence, pilocarpine may be conveniently used as a means for the differential diagnosis. The drug may be resorted to in all cases where the patient's heart is found to be more or less sound. Dr. Witkowski's statements are based on nearly thirty consecutive cases of jaundice treated successfully by the remedy during the last three years. One case—his first one of the kind—is adduced in detail. It refers to a woman of 41 suffering from severe nephritis complicated with wandering

enlarged liver, gall-stones, ascites, œdema of the lower limbs and recurrent jaundice of four years' standing. The patient had been previously treated more or less unsuccessfully by Carlsbad waters, Priesspitz's compresses, abdominal belt, etc. Pilocarpine was resorted to in the dose of one-sixth of a grain, once or twice daily. The results surpassed all expectations. In three weeks the patients was practically well. The woman has enjoyed good health ever since (three years have elapsed).—*Prov. Med. Jour.*—*N. O. Med. and Surg. Jour., Aug.* 1889.

Book Notices.

Hog Cholera—Its History, Nature, and Treatment, as Determined by the Inquiries and Investigations of the Bureau of Animal Industry. Washington: Government Printing Office. 1889. Octavo. Pp. 193. Plates XVI.

This report is elegantly gotten up and would seem to indicate that the government thinks "more of hogs than men." The cause is attributed to the hog cholera bacillus. The cure is in isolation, disinfection and cleanliness—*i. e.*, the prevention. The treatment, calomel and castor oil, with careful attention to feeding non-irritating foods.

It must be admitted that we are disappointed in this report. So much attention is paid to the bacillus and none absolutely to other micrological forms which have been found in hog cholera, if the gigantic experiments made in 1858 by Salisbury are to be credited, and until they are proved to be false they must be acknowledged to be ahead of the experiments noted in the book under criticism.

Salisbury (see the Relation of Alimentation and Disease, by J. H. Salisbury, M. D., LL. D., N. Y. J. H. Vail & Co., 1888) fed one thousand hogs on distillery slop in 1858 and one-fourth of them were dead in eight weeks. In pens adjoining them were fed healthy hogs on sweet corn and none died. Salisbury autopsied (*loc. cit.*) 104 of the hogs dead from excessive feeding of distillery slop and found vinegar yeast in the blood in all cases; vinegar and alcoholic yeast in digestive organs of all; consumption of bowels and embolism in all. Embolism of lungs, 102 out of 104; embolism in brain, 72 out of 104. Thickening of large intestines, 82 out of 104. Tubercles of lungs, 79 out of 104, etc.

We do not wish to discredit the work of the government, but we would like to see Dr. Salisbury's experiments repeated and men engaged to watch them who will not be tied down

to the narrow field of bacteriology, but who will investigate all the microscopical features of the disease as well as the macroscopical. If Salisbury's experiments were correctly noted and reported, *then hog cholera is a food disease, non-contagious, and can be prevented better by feeding the right food than any other way, as by so doing causes are stopped.* Let us have this question settled. If Salisbury could afford to make his large experiments, then our government can. Moreover, the decision of this question will be a great help to the committee of dietetics of the American Medical Association established to promote the acquisition of knowledge as to food diseases and their proper treatment. EPHRAIM CUTTER.

A System of Obstetrics by American Authors. Edited by BARTON COOKE HIRST, M. D., Associate Professor of Obstetrics in University of Pennsylvania, etc. VOL. II, Illustrated with 221 Engravings on Wood. Philadelphia: Lea Brothers & Co. 1889. Leather. 8vo. Pp. 854. (From Publishers.)

The authors of articles in this volume are Drs. E. P. Davis, G. E. De Schweinitz, Robert P. Harris, the Editor, J. H. Lloyd, and Theophilus Parvin, of Philadelphia; Henry J. Garrigues, J. Lewis Smith and Stephen Smith, of New York; Harrold C. Hirst, of Boston; and Jas. C. Cameron, of Montreal. This list of authors would, in itself, be sufficient to commend the volume. The subjects considered are the diseases and accidents of labor; the forceps—embryotomy; premature induction of labor; version; Cæsarean operation, symphysotomy, laparo-elytrotomy, and laparo-cystectomy; puerperal infection; inflammation of the breast and allied diseases connected with child-birth; etiology of puerperal fever; some complications of the puerperal state, independent of septic infection; insanity and diseases of the nervous system in the child-bearing woman; management and diseases of the new-born infant; surgical diseases of infancy and early childhood; and congenital anomalies of the eye. Thus it will be seen, this volume covers about the most important subjects connected with obstetric science and art. Each article is a monograph in itself on the subject in hand, and contains much information that is not to be found in the usual text-books on obstetrics, and the advice given is generally well-founded in theory and supported by the strong test of experience of men able to judge of results. It would be impossible to do less than commend this "System by American Authors" to the practical obstetrician, and to the student of the science and art of obstetrics.

Atlas of Venereal and Skin Diseases. With Original Text by PRINCE A. MORROW, A. M., M. D., Clinical Professor of Venereal Diseases University of City of New York, etc. New York: William Wood & Co. 1889.

We have before us Fasciculi XIV and XV of this magnificent Atlas. We most heartily congratulate the Editor, who has so faithfully performed his part in full, that with the issue of the fifteenth Fasciculus he is now permitted to rest from his labors, with the satisfaction that the result of his good work will follow for decade upon decade. The plates in Fasciculus XIV represent Lupus erythematosus, L. vulgaris, L. papillaris, Tuberculosus papillomatosa cutis, Sarcoma of trunk, S. of face, Epithelioma, Rodent ulcer and Leprosy. Fasciculus XV contains plates of Scabies, Pediculosis corporis, Chromophytosis, Tricophytosis and Favus, Eczema marginatum, Favus. With the issue of Fasciculus XV, the entire *Atlas* is completed; and the whole work, of some 325 royal quarto pages of text, and 75 plates with flesh colored tints, with title page, index, etc., is most unreservedly recommended to every practitioner of medicine who cares to have information as to the diagnosis and treatment of skin diseases. Such an Atlas as this will last a lifetime. The price is $2.50 a Part, or $37.50 for the finished work. It is sold only by subscription, and the amount is to be sent to the Publisher. In the absence of opportunity to be benefitted by a real clinic, the practitioner can make a very definite diagnosis by examining this *Atlas*. In the line of treatment, no pains have been spared to bring this department of the work up to the latest advances. Messrs. Wm. Wood & Co, as publishers, deserve the thanks of the profession for having so well done their part, regardless of expense.

Editorial.

Medical Examining Board of Virginia.

The Medical Examining Board of Virginia will meet at 118 Jefferson St. S. E., Roanoke, Va., September 3rd, 1889 The meeting on the evening of the 3rd will be an Executive Session. The Examinations will begin on the morning of the 4th at 9 A. M., and will continue for two days. As the time is fully occupied, it is important that applicants be on hand to begin the Examination at the hour named. Those wishing fuller details can obtain them from the President of

the Board, Dr. Hugh T. Nelson, of Charlottesville, Va., or its Secretary, Dr. Hugh M. Taylor, of Richmond, Va. All letters referring to this Session of the Board after August 31st, until September 3rd, addressed to either of these officers should be addressed to them at Roanoke, Va., where they will be until after Sept. 5th.

Tennessee Medical Examiners.

Gov. Taylor has appointed the following State Board of Medical Examiners in accordance with the new law regulating the practice of medicine: Dr. E. E. Hunter, Elizabethtown; Dr. J. B. Winfree, of Murfreesboro; Dr. D. D. Saunders, of Memphis; Dr. H. P. Williams, of Cowan; Eclectic: Dr. W. H. Halbert, Lebanon; Homœopathic: Dr. Tom Hicks, Knoxville.

Tri-State Medical Society.

A movement is on foot to organize a Tri-State Medical Association of the profession of Alabama, Georgia, and Tennessee.

Vacancies in the Virginia State Board of Medical Examiners.

Drs. Robert J. Preston and S. W. Dickenson, of Marion, Va., having resigned their positions as members of the State Medical Examining Board of Virginia, the Medical Society of Virginia during its session, September 3rd–6th, will have to nominate two members from the Ninth Congressional District of Virginia to fill the vacancies. This District is composed of the counties of Lee, Scott, Wise, Dickenson, Buchanan, Tazewell, Russell, Washington, Smyth, Bland, Wythe, Pulaski, Giles and Craig.

Hayden's Viburnum Compound.

"We recently enjoyed a visit to Bedford Springs, Mass., a delightful summer place, fourteen miles from Boston, owned by Dr. Hayden of the New York Pharmaceutical Co., originator and proprietor of Hayden's Virburnum Compound and Hayden's Uric Acid Solvent, two most excellent preparations. We found the Doctor a most agreeable host, a genial gentleman of high professional attianment, who enjoys the confidence and esteem of all who know him. His preparations have a large sale and are justly popular with the profession."—*International Journal of Surgery, Juty,* 1889.

Buffalo Lithia Water Advertisement

Is changed to the card board page 34.

The Tenth International Medical Congress

Will be opened on the 4th and closed on the 9th day of August, 1890, in Berlin. Detailed information as to the order of proceedings will be issued after the meeting of the delegates of the German Medical Faculties and Medical Societies at Heidelberg on September 17th, 1889. This announcement is signed by von Bergmann, Virchow and Waldeyer, who request that we make this fact known in the circle of our subscribers and invite them to the Congress.

Purcell, Ladd & Co.

The wholesale drug house of Purcell, Ladd & Co., was established in 1840. Its reputation from that time to the present for exact and honorable dealing, for enterprise, for the superior quality of the drugs and druggists' articles, chemicals and medicines furnished to the public has been uniform and always recognized as first class. Many subscribers in the country are often asking as to a wholesale drug house in Richmond, and we therefore feel we are doing them service in saying this much.

Messrs. Wm. R. Warner & Co.'s Exhibit in Paris.

The *Pharmaceutical Record* says that there is no other exhibit of the class in the United States section to rival that of Wm. R. Warner & Co., an exhibit which the native pharmaciens can look at with both admiration and wonderment. Their arrangement is such as to be above deprecatory criticism; and those Frenchmen there could not be a people with better taste for the proper and harmonious exhibition of products. Readers would find superfluous a description in detail of the Messrs. Warner & Co's essentially fine installation covering all their soluble sugar-coated pills, salts, &c. Suffice it is to remark that at the Paris Universelle their exhibit is thoroughly representative, comprises all the makers' fabrications, and is decidedly an honor to the concern.

The Nolandine Co.

Of Richmond, Va., begin an advertisement in this issue of preparations which have received the highest kind of professional endorsements for the cure of chills and fever, functional liver troubles, etc. The virtues of the drugs named seem to rest in the special manner of their combination. During a recent visit to the Laboratory, we were courteously shown every detail of the manufacture.

William F. Barr, M. D., A. M.

We congratulate our friend, Dr. Barr, of Abingdon, Va., upon the reception of the Honorary Degree of A. M., recently bestowed on him by the Faculty of Weaverville College, N. C. Dr. Barr was one of the prime movers in the organization of the Medical Society of Virginia in 1870, and ever since then has been a leader in many useful, scientific and educational interests.

Low Prices for Surgical Instruments, Etc.

It is gratifying to observe that the Mellier Drug Company of St. Louis, on account of conducting their Surgical Instrument Department in connection with other branches of their business, are able to offer such goods at lower prices than any other dealers, so that it does not require any such enormous outlay for a physician to purchase a stock of staple Surgical Instruments as was formerly the case. See advertisement.

Practical Applications of Electricity in Medicine and Surgery.

Mr. F. A. Davis, of Philadelphia, has in press a new work on this subject, by Dr. G. A. Liebig, Jr., of Johns Hopkins University, and Dr. George H. Rohé, of the College of Physicians and Surgeons, of Baltimore. The part on Physical Electricity, by Dr. Liebig, one of the recognized authorities on the science in the United States, will treat fully such topics as storage batteries, dynamos, the electric light, and the principles and practice of electrical measurement in their relations to medical practice. Prof. Rohé, who writes on Electro-Therapeutics, discusses at length the recent developments of electricity in the treatment of stricture, enlarged prostate, uterine fibroids, pelvic cellulitis, and other diseases of the male and female genito-urinary organs. The applications of electricity in dermatology, as well as in the diseases of the nervous system, are also fully considered. The work will be fully illustrated by engravings and original diagrams.

Mr. John F. Hancock,

The well-known Pharmacist of Baltimore, Md., has sold the Dispensary Department of his Pharmacy, with which he has been identified for the past thirty-five years, retaining the manufacturing, which he organized about twenty years ago. By diligent attention to Laboratory work, and by affording the profession a line of standard preparations,

he hopes for reasonable success, believing that he can better serve the interests of medicine in the more restricted field of Pharmaceutical labor. His Pharmaceutical preparations are favorably known. He was the first Pharmacist in the United States who undertook the manufacture of Medicated Lozenges on a large scale, that work having been generally delegated to Confectioners. To judge from the extensive use of Hancock's Lozenges by physicians, this special work of his Laboratory must have met with the general approval of the profession. His efforts merit the encouragement of physicians, and we wish him success.

Obituary Record.

Dr. Isaac White

Died suddenly at his home in Shawsville, Va., August 3rd, 1889, aged 52 years. He was born in Albemarle county, Va. He graduated from the Medical College of Virginia in 1857. During the war, he was Surgeon in the Confederate Army, first of the Twenty-fifth Virginia Regiment, and afterwards of the Thirty-first Regiment. After the war, he practiced medicine for a time at Christiansburg, Va., and afterwards became Resident Physician at Alleghany Springs, Va., which position he held at the time of his death.

In 1874, he joined the Medical Society of Virginia, of which he was elected a Vice-President in 1880. Whether as a physician or a friend, he was sincerely in earnest, and his loss will be the cause of mourning with many scattered all over the country who have visited the popular Alleghany Springs of Virginia.

Dr. James Lawrence Cabell,

Of the University of Virginia, died August 13th, 1889, in Albemarle county, Va., at the summer residence of his adopted daughter, Mrs. E. B. Smith. He was born in Nelson county, Va., August 26th, 1813, and hence was within two weeks of being 76 years of age. His great grandfather, Dr. William Cabell, was a Surgeon in the English Navy, who emigrated to Virginia about 1720, and from whom the now very extensive family residing in Virginia, Kentucky, and other Southern and Western States has descended.

Dr. James L. Cabell's primary education was received from private schools in Richmond, Va. In 1829, he entered the University of Virginia as an academic student, from

which institution he graduated as Master of Arts in 1833. He at once began the study of Medicine in the University of Maryland, from which University he graduated as Doctor of Medicine in 1834. He next pursued chemical studies at the Baltimore Almshouse and then in the hospitals of Philadelphia, and afterwards went to Paris, where he further pursued his medical studies.

During the winter of 1837, while in Paris, he received information of his election as Professor of Anatomy, Physiology and Surgery in the Medical Department of the University of Virginia; and, on his speedy return to Virginia, he at once began upon the duties of his Professorship. In 1839, his chair was so divided as to give off Anatomy—the late Dr. John Staige Davis being elected to take charge of that, along with Materia Medica and Therapeutics. Dr. Cabell continued as Professor of Physiology and Surgery until his death.

In 1839, Dr. Cabell married Miss Margaret Gibbons, who died in 1874. They had no children, but adopted two daughters—one, the cousin of his wife, who is now Mrs. E. B. Smith, of Richmond, Va., and the other is Mrs. H. B. Auchinoss, of Orange, N. J.

Until 1858, he contributed but little to literature, when he published his book on the "Unity of Mankind," in answer to Notts & Giddon's book, entitled "Types of Mankind." This latter work advocated the doctrine that all races are not descended from the same source, while Dr. Cabell showed that such teaching was not supported by lessons of science.

In July, 1861, he was assigned to duty as Surgeon in the Confederate Army, in charge of the hospitals of Charlottesville, Va., and so remained (with the exception of some four months in 1862, when he had temporary charge of hospitals in Danville, Va.) till the close of the war in 1865.

In the fall of 1865, he resumed active duties again as Professor in the University of Virginia—the Medical Department of that institution having temporarily suspended during the latter part of the war.

He materially aided in the organization of the Medical Society of Virginia in 1870, of which he became President in 1875, and was afterwards elected an Honorary Fellow of the same.

He gave a great deal of effort to the establishment of the Virginia State Board of Health in 1871, and was elected its President, and nominally so remained till his death. But this Board nor its friends have ever been able to remove

from the law which established it the clause which practically kills it, namely: "provided, said State Board of Health shall not be an expense upon the State." He has been a member of the American Medical Association since its organization, and has always been prominent in its interests. He was a great help in the establishment of the National Board of Health, of which he was President for five years, when he declined re-election. He was also President of the American Public Health Association for one year. He was an excellent and valued adviser in the establishment of this journal in 1874, and was its warm friend through the stages of its development. In 1873, he received the Honorary title of LL. D. from Hampden Sidney College, Va.

Dr. Cabell had been in failing health for a year or more. Last Spring, he offered his resignation as Professor in the University of Virginia, but the Board of Visitors declined to accept it; and in view of his long, efficient and eminent services continued him as Professor with salary, and elected Dr. Paul B. Barringer, of Davidson College, N. C., as Assistant Professor, who will now, no doubt, be at once promoted to full Professorship. It was indeed fortunate that so capable an Assistant was elected when he was; for all the friends of the University now feel that the mantle of a great man has fallen upon worthy shoulders.

In July, Dr. Cabell went to the White Sulphur Springs, and returned to Charlottesville about the 15th of that month. Then he went to spend the season at the country seat of Maj. E. B. Smith, in Albemarle county—not far off. While it was not expected that he would ever be able to again resume active duties, his death was rather sudden—being due to some stomach trouble, recently developed as the result of failing health, which prevented the powers of assimilation and nutrition.

His remains were laid to rest in the University of Virginia Cemetery August 16th.

Dr. Cabell was a member of the Episcopal Church. His influences for good were directed by intelligence of mind and purity of heart. His life-work was devoted to the interests of the University of Virginia, and its prominent position among the educational institutions of this country is greatly due to his wise counsels and his indomitable energy. He was the senior member of the Faculty.

His life is ended—his work is done; but the influences of that life and the results of that work will leave their impress upon a generation yet unborn.

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RICHMOND, OCTOBER, 1889.

Original Communications.

ART. I.—The Value of Creosote in Fifty Cases of Disease of the Air Passages.*

By WM. PERRY WATSON, A. M., M. D., of Jersey City, N. J.

ATTENDING PHYSICIAN TO ST. FRANCIS' HOSPITAL AND THE CENTRAL DISPENSARY (DEPARTMENT OF PEDIATRICS), CONSULTING PHYSICIAN TO ST. MICHAEL'S ORPHAN ASYLUM &C., &C.

The principal objects of all public hospitals should be two-fold, viz: first, to give medical and surgical relief to the indigent sick and injured poor; and, second, to acquaint the profession with the results of old or new modes of treatment.

That the former object is too much imposed upon, the city practitioner knows too well, while the latter cannot be used too frequently.

That I may add my mite to the latter, is my reason for calling your attention to the revival of an old form of treatment of phthisis pulmonalis; and I desire at this time to acknowledge the courtesy of my colleagues on the medical staff of St. Francis' Hospital, Drs. W. J. Parker and Ham-

* Read before the One Hundred and Twenty-third Annual Meeting of the Medical Society of New Jersey, at Asbury Park, June 18, 1889.

ilton Vreeland, in allowing me to watch these special cases during their respective terms of service, and to my assistant, Dr. B. P. Craig, for valuable services rendered in preparing the histories of these cases.

"The use of creosote in the treatment of phthisis pulmonalis dates back to 1830, the year in which it was discovered by Reichenbach, of Blausko, in Moravia. Later on, it fell into disuse, like some other valuable medicaments, and for nearly thirty years previous to 1877 it was practically of little or no importance in the therapeutics of pulmonary disease."*

In 1877, Bouchard and Gimbert published† a very complete article on its beneficial effects in consumption; and in 1878, Beverly Robinson, of New York, said:‡ "I am very much pleased with this remedy, and believe it merits a very extensive trial." During the succeeding seven years, Robinson continued its use, believing it to be a good anti-catarrhal agent, and upon the publication of Jaccoud's "Treatise on Pulmonary Phthisis," he became very much impressed with his "statements about the advantages resulting from the internal exhibitation of creosote in this disease."§ And in an address before the American Climatological Association in New York, May 27, 1885, and in a Clinical Lecture at Bellevue Hospital Medical College,‖ he advocates very warmly the use of creosote as an inhalant and by the stomach in the treatment of pulmonary phthisis.

I have thus freely referred to the use of this remedy by Robinson, because as much honor belongs to the one popularizing an old, as to the one discovering a new remedy. I should not, however, omit to say that the article by Austin Flint, of New York,¶ impressed me so favorably that further investigation of the literature of the subject led me to commence its use during my service of December, 1888, in St. Francis' Hospital.

Three factors will always regulate, to a great extent, the

* *Trans. Association American Physicians*, Vol. III, p. 365.
† *Gazette Hebdomadaire*, 1877.
‡ *Medical Record*, September 21, 1878.
§ *Loc. Cit.*, p. 366.
‖ *N. Y. Med. Jour.* Nov. 14, 1885.
¶ "Creosote in the Treatment of Phthisis Pulmonalis," *N. Y. Med. Jour.*, December 8, 1888.

general use of any remedy by the laboring classes (and they are the ones usually treated medicinally), namely, first, the cost; second, ease of application; and third, the immediate advantages perceived. In the use of creosote, the first two factors are easily complied with; and if further investigations shall substantiate those already made, the third one will be satisfactorily settled.

The cases hereinafter reported are not selected, and it is well known many of these cases usually seek a hospital for a comfortable home in which to die. That the improvement in some of these cases may be ascribed to a change of living (good diet and rest), is quite true, but it cannot account for the permanent relief obtained in others. Again, it is well known that glycerin and whiskey are excellent remedies for so-called "coughs," to say nothing of their stimulating and sustaining properties. At the present time, in St. Francis' Hospital, all the consumptives, so far as possible, are kept together, male and female respectively; but it is impossible to completely isolate them from the other patients, although it is the intention to do so next year, with the designed enlargement of the hospital.

After the use of inhalers for a few days, the comparative sweetness and purity of the atmosphere of the wards was remarked by the visiting staff and the Sisters in charge.

The inhaler used was Robinson's Perforated Zinc Inhaler, made by W. F. Ford, of Hazard, Hazard & Co., New York.

The inhalants used were as follows, and are designated by numbers, which will be used in the reports of the cases hereinafter given.

(1) ℞. Creosoti (Morson's).....
Sp. chloroformi.....
Alcoholis.... .....āā equal parts.

M. S.—Five to twenty drops, to be used on the inhaler every three hours.

(2.) ℞. Iodoformi. .....gr. xxiv
Creosoti (Morson's).....ℳ. iv
Ol. eucalypti.....ℳ. viij
Chloroformi..... .....ℳxlviij
Alcoholis.....
Ætheris.....āā q. s. ad. ℥ss

M. S.—Five to twenty drops, to be used on inhaler every three hours.

Internally, creosote was given in the following formula:

(3.) ℞. Creosoti (Morson's).....ℳ. xij
Glycerinæ (Price's).....ʒj
Sp. frumenti..... q. s. ad. ʒij

M. S.—Half a teaspoonful every three hours, well diluted.

Cough medicines were frequently used, and those proving most efficient being (4.) Syr. pruni virg., one part, with syr. hypoph. comp., three parts, of which two teaspoonfuls taken every three hours gave marked relief in many cases Also (5.) Ac. hydrocyanaci dil. ʒss.; sp. chloroformi, ʒij.; syr pruni virg., ad. ʒij., of which a teaspoonful given hourly at night relieved the vesicular cough, thereby enabling the patient to sleep For the fever, it was found that 2 grains each of quinine and antipyrin, given every two or three hours gave the most relief. For the night-sweats, the following drops, given at six and nine P. M., seemed to give more comfort than any other combination :

℞. Atropinæ sulph.....gr. j.
Morphiæ sulph.....gr. viij.
Ac. sulph. arom ..... ʒij.
Aq. menth pip.....q. s. ad. ʒj.

M. Sig.—Five drops every three hours at night.

For the diarrhœa, powdered opium and tannin usually answered every purpose,

Case I.—Female; admitted December 18, 1888: domestic; aged 14.

Knows nothing of her family history. Always enjoyed good health until March 12th, 1888 (blizzard week), when she took a heavy cold, and has coughed ever since. Spat blood first in the June following, and has been in bed since November 28th, 1888. Cough loose; muco-purulent expec-

toration and night-sweats profuse. Appetite poor; bowels regular; anæmia and emaciation very marked. Clubbed fingers; heart-sounds normal. Physical examination of chest shows large cavity in two upper lobes of right lung; consolidation in base of left lung, and moist râles throughout the bronchial tubes. Put on 1 and 3.

December 31.—Much improved; appetite better; coughs very little during the day; less night-sweats; sits up on a chair part of the day, and says she feels better in every way.

January 7, 1889.—Took a severe cold yesterday, and now has a very marked pharyngo-laryngitis, for which she is to gargle her throat with a solution of chlorate of potash every two hours. In addition to the regular hospital diet, she is to have liquid beef peptonoids, alternating with cod-liver oil and milk.

January 16.—Pharyngitis entirely well, but some hoarseness still remains; has not had a night's rest during the last two weeks; appetite much better; coughs less during the day and the forepart of the night.

January 25.—Again took a heavy cold, from which she never rallied—dying on the 30th of the month.

Case II.—Female; admitted December 12, 1888; aged 28; housekeeper.

Family history good; has had more or less cough since December, 1887, and this she thinks was aggravated during the past winter and spring by working in the tobacco factory; coughs more at night, and then, at times, being unable to lie down; cough is dry; anæmic; appetite poor; bowels constipated. Physical examination of the chest shows the general presence of sibilant and sonorous râles with hyperresonance on percussion. To have thirty minims of linseed oil three times a day.

December 18.—Much improved; rests better at night, but cough is still troublesome. To stop the linseed oil and commence the use of 1, and immediately after the first sitting, expressed herself as being greatly relieved.

January 7, 1889.—Was almost entirely well until the 3rd instant, when she took more cold, and is now as bad as ever, with moist and dry râles throughout both lungs. To have 2, 3 and 4.

January 16.—Coughs less; expectoration free for the first time; no more asthmatic breathing; says she gets great relief from the inhalations.

January 21.—Has no cough during the day, and only a little during the night; appetite good; sleeps well; bowels

regular; going home to-day, and take a copy of the cough mixtures with her.

Case III.—Female; admitted November 12, 1888; aged 34; housekeeper.

Family history good, excepting that her father died of alcoholism. She has been a hard drinker for the last two years, but always had good health until last April, when she moved into a new house, took cold, followed by a cough which has continued ever since; has been unable to do her house-work since last June, and has been in bed since September.

December 9.—Marked emaciation; cough constant and loose; appetite poor; frequently vomiting; large cavity with gurgles in upper lobe of right lung, and a small cavity in the left apex. To have 1 and 3, but the former she absolutely refuses to take, and frequently vomits the latter; although largely diluted, the only thing giving her any relief whatever being the anti-night-sweat drops. Died December 27.

Case IV.—Female; admitted November 12, 1888; aged 20; housekeeper.

Family history good; has never enjoyed good health since she was married four years ago; has had constant cough during the last four months, with considerable naso-pharyngeal catarrh and night-sweats; anæmic; emaciated; expectoration, greenish muco-purulent. Physical examination of the chest reveals consolidation in both apices, with moist râles in the left, and general inflammation of the larger bronchi; also albumen and casts in the urine.

December 18.—To have 1, and that night she slept all night, the first time in weeks; also to have 3.

January 7, 1889.—Has taken 1 regularly, but 3 not so often as directed, on account of an irritable stomach; cough and expectoration less; naso-pharyngeal catarrh entirely cured; appetite fair. In addition to the regular hospital diet, she is to have liquid beef peptonoids, alternating with gluten and milk.

January 16.—Much improved in general appearance, and says she feels much stronger; no night-sweats; sleeps good at night; appetite good; and says she is cured, and is going home to-morrow, with a promise to continue the creosote mixtures. The condition of the lungs seems to be at a stand still.

February 15.—Re-admitted; had been getting along nicely until day before yesterday, when, after being out of doors,

she was taken with a severe chill. On admission, pulse, 140; respiration, 46; temperature, 105°. An examination of the chest shows pneumonia of the right lung, and she died February 18.

Case V.—Female; admitted November 21, 1888; aged 50; domestic.

Family history good, excepting one brother, who died of consumption at 29; has always enjoyed good health until one year ago, when she took cold, followed by a cough, spitting of blood, night-sweats, and progressive emaciation.

December 18.—Appetite fair; emaciated; bowels regular; cough very troublesome, especially at night, and with night sweats; expectoration, muco-purulent. Physical examination of chest reveals nothing but bronchitis. To have 1 and 4.

January 7, 1889.—Has less night-sweats; appetite improved. To have 3 alternating with 4, and to use 2 instead of 1.

January 16.—Much improved in general appearance; appetite better, and says she is getting stronger; sleeps much better; coughs and expectorates less.

January 21.—Going home to-day, saying she is entirely well.

Case VI.—Male; admitted December 3, 1888; aged 28; farm laborer.

Family history good, excepting death of mother at 45 of consumption; had malarial fever eight years ago, and has been a hard drinker ever since. Last February, commenced to cough after a prolonged spree, and has coughed continually since; spat blood four months ago; lost twenty pounds in weight during past year; has had night-sweats during last six months.

December 18.—Emaciated; flushed cheeks; anæmic; cavity in left apex, with consolidation at left base and right apex; appetite poor; restless at night on account of cough and night-sweats; expectoration profuse. Put on 1, with five grains of quinine three times a day.

January 8, 1889.—Has taken inhalation regularly three times a day; coughs less; expectorates less, but nightsweats about the same; has fever every morning from 10 to 12 o'clock, which is much relieved by the mixture of quinine and antipyrine.

January 10.—Had a small hæmorrhage from lungs.

January 14.—Coughs and expectorates less; complains of

pains in his stomach. All medication to be stopped excepting 1 and 2.

January 29.—Has not had any night-sweats since the 14th; cough and expectoration same; less pain in stomach; appetite fair.

February 6.—Fever has returned, followed by profuse sweating, which continues during the night; expectoration profuse. Fifteen grains of antipyrin with one ounce of whiskey ordered when temperature is 103° or over; cannot take 3 because it nauseates him.

February 20.—Refused to take 1 and 3 because he says he has pains all over him, and he foolishly ascribes the cause to them. Examinations reveal breaking down of consolidation in left base, and some fine crepitation in right apex. From this time until his death, April 13, he refused to use the creosote mixtures.

Case VII.—Male; admitted November 8, 1888; aged 46; longshoreman.

Family history good, excepting that his mother died at 70 of asthma; has been subject to coughs off and on since 1865, but attended to his work until last month. About three years ago, he spat blood for the first time, which has been repeated three or four times since. Since then, he has had a poor appetite, and has consequently lost flesh.

December 18.—Anæmic; emaciated; consolidation of right apex, with moist râles, with general bronchitis; expectoration free; sleeps poorly after midnight, on account of cough and night-sweats. To use 1 and 3.

January 14, 1889.—Cough and night-sweats less; appetite better; scarcely any expectoration; says he has no pains, and feels much better and stronger.

January 29.—General appearance markedly improved; no night-sweats; sleeps well, expectoration almost *nil;* appetite good. Physical examination shows almost entire disappearance of the general bronchitis and the moist râles at the right apex, but the consolidation still remains. Is going home to-morrow, and promises to report to me if he should get any worse.

Case VIII—Male; admitted December 10, 1888; aged 52, butcher; was similar in all respects (excepting that he never spat blood), to the preceding case, and with even better results.

Case IX.—Male; admitted December 3, 1888; aged 46; laborer.

Family history good, excepting that his brother, at thirty-

five, died of consumption; has had a cough for the last eighteen months, but continued at his work until two weeks ago; never spat blood.

December 18.—Emaciated; appetite fair; coughs most during the day and when he first lies down at night, especially when lying on his left side; has chronic bronchitis (general), with small pleuritic adhesion on left side. To use 1 and 3 and have affected side painted with tincture iodine every other night.

January 14, 1889.—Says he feels much better; coughs less; no pain in side, and goes home to-day.

Case X.—Male; admitted December 10, 1888; aged 50; storekeeper.

Family history good; has always been more or less asthmatic, and especially liable to "take cold;" last March (blizzard week), took a severe cold, and has had cough ever since; never spat blood. During the last three months has had diarrhœa, and during that time has lost flesh rapidly.

December 18.—Anæmic; emaciated; cough and expectoration free; has spot of capillary bronchitis on lower lobe of right lung, and consolidation at left apex; has four or five loose movements every night and two or three during the day. To have 1 and 3 and the ward mixture for diarrhœa. Fly-blister over capillary bronchitis.

January 14, 1889.—Coughs less; expectoration less; appetite better; and movements less. In every way, he says he feels much improved. The spot of capillary bronchitis has entirely cleared up, and the consolidation remaining *in statu quo*; left hospital to-day.

Case XI.—Male; admitted December 1, 1888; aged 46; tailor.

Family history good; fourteen years ago had an attack of apoplexy, leaving a paralysis of right side of face, and two years ago another attack, followed by paralysis (incomplete) of left arm and leg; nine years ago, had a hæmorrhage from the lungs; five years ago had pneumonia, with which he was sick for five months; but notwithstanding all these misfortunes, he was pretty well until a year ago, when he took another cold, and has had a cough ever since.

December 18.—Anæmic; emaciated; left arm, fore-arm, and hand cold; slightly lame in left leg. There is a small dry cavity (evidently an old one) in right apex, and consolidation in middle right lobe, with moist râles. Coughs almost constantly; expectorates freely, and has profuse night-

sweats; appetite poor; sleeps poorly. To have 1 and 3, with a fly-blister over right (middle) lobe.

January 14, 1889.—Has not been able to take 3 and don't think he has taken 1 very regularly, although he says he feels much better; coughs and expectorates less, and sleeps better; no change in night sweats. The Sister in charge of the ward says his mind is becoming affected, and that he is to be transferred to the County Asylum in a few days.

Case XII.—Male; admitted December 24, 1888; aged 32; cigar-maker.

Family history good; always enjoyed good health until last spring, when he commenced to have pains in his chest, with a cough. In June had a profuse hæmorrhage, and others in August and October; has not worked since June, and has been in bed since November.

December 26.—Emaciated; consolidation right apex and cavity, with large ronchi in left apex; appetite very poor; night-sweats; expectoration profuse; cough worse towards morning. To have 1 and 3, which he used until January 4, 1889, without any appreciable result, when he died.

Case XIII.—Male; admitted December 24, 1888; aged 40; laborer.

Family history good; always had good health until the 20th instant, when he took a severe cold; well-nourished; cough constant; respiration labored; right chest nearly half full of fluid. To have 1 and 3, and a fly-blister over the effusion.

January 6, 1889.—The Sister in charge of the ward says he has used the inhaler almost constantly, even sleeping with it on his face.

January 18.—The effusion is entirely absorbed, and, with the exception of a little cough, for which another fly-blister was ordered, he says he is entirely well, and goes home to-morrow.

Case XIV.—Female; admitted December 31, 1888; aged 33; housekeeper.

Family history good; always had good health until July, 1886, when she took cold, followed by a cough, which she has had ever since; spital frequently tinged with blood; has lost flesh rapidly since last spring; been in bed since November; emaciated; anæmic; clubbed fingers and toes with blue nails; appetite poor; bowels loose; expectoration profuse; also night-sweats; cavity in middle lobe right, and

apex of left with consolidation of left base. To have 1 and 3 until January 7, 1889, when 1 was changed to 2.

January 16, 1889.—Feels stronger; "smothering" has gone; expectoration and night sweats less; sleeps very good during fore-part of night; appetite poor; and says she cannot take 1, and does not use 2 very often.

February 7.—Has taken 1 and 2 very often; says she feels about the same.

February 11.—Dead.

Case XV.—Female; admitted January 2, 1889; aged 22; works in tobacco factory.

Family history good; always well until six months ago, when she took cold, and has had a cough ever since, although she continued her work until December 22, 1888, when a chill, followed by increased cough, compelled her to lay off.

December 26.—During a paroxysm of coughing, she spat blood; has had no night-sweats; menses normal; cough loose; muco-purulent expectoration; pulse, respiration and temperature normal; moist and dry râles, throughout larger bronchi; and the only other physical signs present are a slightly prolonged expiration at left apex, and a high-pitched inspiration over a spot in right lung under the fourth rib in front. To have 2 and 4, with checker-board painting of chest.

January 16.—In every way feels much better; cough and expectoration much less; sleeps well; appetite good.

January 21.—Says she is entirely well, and is going home to-day. The abnormal sounds have entirely disappeared from the lungs.

Case XVI.—Male; admitted December 29, 1888; aged 27; brakeman.

Family history good; has always had good health excepting an attack of facial erysipelas five years ago; since the 20th instant, has had a severe cold, and gradually lost his voice; this partially returned, so that on the day of admission he could speak in a whisper; coughs constantly—of a brassy character; no expectoration; lungs normal; no inflammation visible in mouth, throat, or pharynx; sweats profusely. To have 1 and 3, which he used until January 6, 1889, when 2 was substituted for 1; the average temperature morning and evening being about 102° until January 16, when a slight attack of facial erysipelas developed; the hoarseness and cough remaining about the same.

January 22.—Erysipelas cured; hoarseness nearly gone;

and temperature has averaged 100° during past week; coughs much less.

January 29.—Discharged, cured.

Case XVII.—Male; admitted January 2, 1889; aged 47; engineer.

Family history good; has always had good health until last July, when he had pneumonia, which left him with a slight cough. In September, he spat blood, but continued to attend to his work, however; did not lose flesh; is now well-nourished, and with a good appetite; coughs only in the morning a little; no expectoration. Examination of lungs shows nothing abnormal. Upon being so informed, he becomes indignant, declaring that Drs. So-and-So said there was. He was then ordered into the consumptive's ward, and to use 1 continuously; and on the following day he left the hospital a disappointed man in not being able to secure comfortable lodgings for the winter.

Case XVIII.—Male; admitted December 29, 1889; aged 34; blacksmith.

Family history good, excepting possibly his father, who died of a chronic cough, although he says there's no consumption in the family; has always been a hard drinker, but until six months ago had enjoyed very good health, excepting an attack of malaria now and then, when he took cold, and has been poorly ever since; has lost thirty or forty pounds in weight during last six months, but continued at his work up to the 26th instant. On admission, he appears fairly well-nourlshed, although his appetite is poor; sleeps fairly well; laryngeal hoarseness, with an almost constant cough, which is more aggravated towards morning, when he perspires freely; expectoration profuse. Physical examination reveals cavity with gurgles in left apex, and some consolidation at base of same lung. To have 1 and 3.

January 9, 1889.—Temperature has ranged at about 101° since admission; some diminution of night sweats, and amount of expectoration; substituted 2 for 1.

January 14.—Coughs more, and expectoration more profuse; has no night-sweats; no pains nor aches; is up and around the wards.

January 16.—Some change in his domestic affairs requires his presence at home, where he went to-day.

Case XIX.—Male; admitted January 15, 1889; aged 19; laborer.

Family history good; enjoyed very good health until three months ago; since which time he has had cough with

profuse expectoration, and during last two months repeated hæmorrhages; loss of flesh, and night-sweats. On admission, he is anæmic; very much emaciated; cough loose, and expectoration profuse. Physical examination shows a general breaking down of lung tissue at both apices; the larger cavity with gurgles in the right. He was put on 1 and 3, but without any change for the better, until January 25, when he died.

Case XX.—Male; admitted January 16, 1889; aged 24; bricklayer.

Family history good; has had cough with repeated hæmorrhages during last six months. In other conditions and symptoms he resembled No. XIX so closely that minute details are unnecessary. His condition gradually became worse, and he died January 22, the creosote mixtures having no apparent effect on his condition.

Case XXI.—Male; admitted January 5, 1889; aged 47; laborer.

Family history good; and in nearly every respect resembling Case XVII, the "malingerer;" and, soon tiring of the company of consumptives, he left the hospital January 9, 1889, a wiser if a sadder man.

Case XXII.—Male; admitted January 10, 1889; aged 49; laborer.

Family history good; has had a cough last two years; never spat blood. On admission, he is in good physical condition; appetite good; has general bronchitis, with emphysema. Put on 2 and 3, and on January 22, the condition of the lungs being almost entirely relieved, he was discharged.

Case XXIII.—Male; admitted January 15, 1889; aged 28; laborer.

Family history good; has had a cough during last two years, but always attended to his work. Was admitted to hospital for general myalgia, and has, in addition, some general bronchitis and a thickened pleura at left base. A fly-blister at this point with 1, which was used almost constantly, and two grains each of quinine and Dover's powder every three hours relieved him so much that he was discharged January 29, 1889.

Case XXIV.—Male; admitted January 24, 1889; aged 41; longshoreman.

Family history good; has had a cough during last two years; spat blood three years ago; has not been able to attend to his work since last April, partly on account of an

operation for hæmorrhoids, which was performed at that time. On admission, he is very anæmic, emaciated, and has general bronchitis; consolidation, with fine râles in left apex. He also has a fistula-in-ano, which gives him very much pain. Was put on 1 and 3, with cod-liver oil.

February 6.—There is some improvement in his general condition; complains of pain in rectum whenever he coughs; refuses to have fistula operated upon; 4 substituted for 3, but without material improvement, and he died February 21.

Case XXV.—Male; admitted January 25, 1889; aged 40; laborer.

Family history good; his personal history and present condition closely resemble Case XVII, and his improvement more marked than in XVIII, was such that he was discharged February 28, 1889, saying that he was entirely well.

Case XXVI.—Male; admitted January 26, 1889; aged 38; laborer.

Family history good; has had a cough during the year past; never spat any blood; attended to his work until the first of the month, but has not been confined to his bed. On admission, he appears in very good general condition; appetite fair; coughs a great deal, but does not expectorate much. On examination, there is found consolidation of right apex, with a few fine râles. To have 2 and 3.

February 6.—Complains of pain in his stomach after taking 3, so that it has to be stopped. The inhalations are continued irregularly until February 21, when he was discharged, the condition of the lung still remaining *in statu quo*.

Case XXVII.—Male; admitted February 13, 1889; aged 38; brakeman.

Family history good, excepting that his mother died of asthma, aged 61; he has had good health, excepting that during the past two years, when he has been troubled with a cough, which is aggravated by the least exposure; never spat blood, nor been confined to his bed, but has not been able to do much work during the past two months. On admission, he is somewhat emaciated; appetite poor, with night-sweats. Examination reveals a small cavity in middle lobe of right lung, and some consolidation at same apex To have 2 and 3, with counter-irritation over right lung.

March 2.—Has taken the inhalation quite regularly, and the internal mixture at least every day; appetite is fair;

general appearance much improved; says he does not cough so much, and that he has no more night-sweats.

March 28.—The general improvement has continued, although his cough, especially in the morning, is troublesome. The condition of the lung is about the same as on admission. Discharged to-day, and promises to continue the medicines.

Case XXVIII.—Male; admitted February 20, 1889; aged 60; longshoreman.

Nothing known of his family history; has had a cough for the last twenty years; has not been able to do any work during the last three years, and has been in bed the most of the last year. On admission, he is very much emaciated and enfeebled; coughs almost constantly, with profuse expectoration and night-sweats, There are large cavities in both apices, and spots of consolidation throughout both lungs. To have 2 and 3, plenty of milk punch, and good diet. These medicines were continued without any apparent effect until February 28, 1889, when he died.

Case XXIX.—Male; admitted February 24, 1889; aged 26; machinist.

Family history good; always had good health until one year ago, when he had an attack of pneumonia (sick two months), since which time he has had a cough easily aggravated by a fresh cold, although he has been able to attend to his usual work until the first of the present month. On admission, he is fairly well nourished; coughs more toward morning, but has no night-sweats. Examination reveals a patch of consolidated lung tissue on the lower lobe of the left lung containing fine moist râles. To have 2 and 3 and a fly-blister over affected lung.

March 2.—General appearance much improved; coughs less; appetite better. To have 2 and 4.

March 12.—Says he feels as well as ever. The consolidation has nearly all cleared up, and he goes home to-day.

Case XXX.—Male; admitted March 2, 1889; aged 27; longshoreman.

This case so closely resembles Case XII in its rise, progress, and termination, that reference may be made to that history for the details. Died April 29, 1889.

Case XXXI.—Female; admitted March 3, 1889; aged 58; domestic.

This case so closely resembles Case XXVIII that further details are unnecessary. Died March 9, 1889.

Case XXXII.—Female; admitted March 5, 1889; aged 32; housewife.

Family history good; has a cough every winter, commencing with the first cold she takes in the fall of the year. The present cough follows a "cold" contracted last December. On admission, she is apparently well nourished; coughs and expectorates freely; no night-sweats; appetite good. Physical examination shows only moist and dry râles throughout bronchial tubes and a post-nasal catarrh. To have 2 and 4.

March 12.—Says the inhalations have cured her catarrh, and that she coughs and expectorates less.

March 31.—Discharged, cured.

Case XXXIII.—Male; admitted March 8, 1889; aged 50; laborer.

This case so closely resembles Case VI in its course, the conduct of the patient, that further details are unnecessary. Died May 29.

Case XXXIV.—Female; admitted March 12, 1889; aged 60; housework.

This case resembles Case II, and for its details you are referred to that case. Discharged improved May 25.

Case XXXV.—Male; admitted March 12, 1889; aged 54; laborer.

See Case XXIX for similar details. Discharged improved March 25.

Case XXXVI.—Female; admitted March 11, 1889; aged 24; housework.

See Case XXVI for similar details. Discharged improved March 31.

Case XXXVII.—Female; admitted March 12, 1889; aged 45; housework.

See Case XXIX for similar details. Discharged improved March 26.

Case XXXVIII.—Male; admitted March 23, 1889; aged 30; laborer.

See Case XV for details of symptoms and management. Discharged cured May 8, 1889.

Case XXXIX.—Female; admitted March 26, 1889; aged 22; domestic.

Family history good, excepting death of one brother at thirty of consumption. She has been in poor health during a year past; in fact, since a cold contracted in blizzard week. Coughs a great deal, especially at night, with free perspiration two or three nights in a week. On admission, she is

fairly well-nourished; somewhat anæmic. Physical examination shows consolidation at left apex, with considerable pleural thickening over posterior lower portion of left lung. To have 2 and 3, with counter-irritation over affected portions—at the apex, iodine; at the base, fly-blister.

March 31.—Says she has much less cough, and scarcely any night-sweats. To have in addition 4. I did not see this case again, but she was discharged from the hospital May 31, 1889, improved.

Case XL.—Male; admitted March 13, 1889; aged 46; coppersmith.

See Case XXIV for details of symptoms, management, etc. Died April 8, 1889.

Case XLI.—Male; admitted March 16, 1889; aged 60; laborer.

Knows nothing of family history; always had good health until a week ago, when he took a severe cold, and has had a cough ever since. On admission, appears well-nourished, hale and hearty for his age; coughs and expectorates freely; no night-sweats; appetite good. Physical examination reveals moist and dry râles in larger bronchial tubes. To have 2 and 4.

March 31.—Coughs and expectorates much less; says the inhalations relieve his cough; uses it nearly all the time.

April 13.—Discharged, cured.

Case XLII.—Male; admitted March 23, 1889; aged 50; laborer.

See Case XXVIII for details of a similar case. Died April 3, 1889.

Case XLIII.—Male; admitted March 29, 1889; aged 45; laborer.

See Case XLI for details of a similar case. Discharged, cured, April 14.

Case XLIV.—Female; admitted March 24, 1889; aged 24; domestic.

See Case XXVI for details of a similar case.

Case XLV.—Male; admitted May 27, 1889; aged 32; harness-maker.

Family history good, excepting that his mother died of pleuro-pneumonia, aged 50, after four months' illness; he has had a cough since two years ago, when he took a severe cold; never spat any blood; during last three months he has been unable to do his usual work, and has been confined to his house during last six weeks; has been very hoarse during last eighteen months; coughs a great deal, but does

not expectorate much. On examination, there is found consolidation with fine râles at left apex and small area of consolidation at right apex. He is anæmic; appetite fair; is not troubled much with night-sweats.

June 17.—Has used 1 and 3 faithfully since the first of the month, increasing 3 one-half a teaspoonful each week, with the results that his throat is much clearer, can talk with more ease, and is not so hoarse; says he feels much better, and is going home, where he promises to use the medicines faithfully, and to report to me each month.

Case XLVI.—Male; admitted June 3, 1889; aged 20; driver.

Mother died of consumption, aged 45, but otherwise his family history is good; has had a cough during the past year; spat blood four weeks ago; is emaciated, with poor appetite. On admission, there is found a consolidation in right apex, and also in middle and upper lobes of left lung, with breaking down of lung tissue at these points; has a troublesome cough with free expectoration, but not much night-sweats.

June 17.—Has used 1 and 3 since admission; says he coughs less since using the inhaler and feels stronger; expectoration about the same, as also the night sweats.

Case XLVII.—Female; admitted June 10, 1889; aged 32; housework.

Family history good; has had a cough since last October following a second miscarriage; is now pregnant six months; is anæmic and emaciated; and while able to do her own housework, yet is easily tired out; cough and expectoration free, with night-sweats; appetite fair, and sleeps very well, excepting towards morning, when the cough keeps her awake. There is consolidation at both apices, with fine râles in the left.

June 17.—Has used 1 and 3, with a diminution in the frequency of the cough, although 3 nauseates her somewhat.

Case XLVIII.—Male; admitted April 15, 1889, aged 29; shoemaker.

See Case XXXIX for details of similar case. This case did not commence to use the creosote until June 1.

Case XLIX.—Female; admitted April 23, 1889; aged 26; domestic.

Case resembles XXXI.

Case L.—Male; admitted April 25, 1889; aged 41; laborer.

Case resembles XXIX.

SUMMARY.

Of the above unselected fifty cases of disease of the air-passages, eight were in the last stage of consumption; and while improvement was noticed for a few days after the creosote treatment was used, yet it had no permanent effect.

Of the sixteen cases with simply consolidation, the improvement was so marked in all cases but two (one complicated with chronic Bright's disease and one with consolidation at both apices), that they were discharged from the hospital.

Of the six cases of chronic bronchitis, some with emphysema, others with pleural thickening, all were markedly improved by the treatment.

Of the five cases of acute bronchitis, all were rapidly cured.

The case of acute pleuritis, with effusion, was quickly cured.

The cases of laryngeal phthisis were improved.

The case of acute laryngitis was cured by the inhalations alone.

The cases of nasal catarrh, as a complication, were quickly cured.

CONCLUSIONS.

The conclusions to be drawn from the foregoing report of cases are, that while creosote will not cure all cases of consumption, yet it will benefit nearly all; that in cases with simply consolidation before the "breaking down" process begins, it seems to arrest the diseased process, and further investigations will be required to ascertain its permanent utility, although similar cases observed for a long time by Robinson and Flint would convince us that the improvement was lasting.

In acute and chronic diseases of the bronchi, its use was very marked, cases of the former being quickly cured, while those of the latter were improved sufficiently for them to leave the hospital in a short time. Another very important fact noticed in these experiments was that the more constant the inhaler was worn, and the internal mixture taken, the

more marked was the improvement; so that I am satisfied that, to obtain the full benefits of this treatment, the system should be saturated with the creosote as rapidly as possible; and while I should not expect any miraculous cures, yet I believe it is, combined with good hygienic and dietetic surroundings, the most promising treatment of consumption in the laboring classes we yet possess.

319 *York Street.*

ART. II —**General Propositions with Reference to the Employment of Antipyretics in Various Diseases, Attended with Abnormal Elevation of Animal Heat.**

by JOSEPH JONES, M. D., of New Orleans, La.

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[CONTINUED FROM SEPTEMBER NUMBER.]

The indications in the treatment of malarial fever may be thus formulated:

1st. The arrest of the fever.

2d. The prevention of the return of the fever.

3d. The arrest and prevention of the characteristic lesions of the blood and organs.

4th. The restoration of the blood to its normal condition.

5th. The establishment of the normal functions of the organs affected by the malarial poison.

During the years 1887 and 1888, up to the 1st of April, 1889, the author has treated over one thousand additional cases of disease in the wards of the Charity Hospital, and has not only renewed the conclusions embraced in the preceding extracts from the second volume of his *Medical and Surgical Memoirs*, but has also formulated in the following proportions the results of his present experience and of his studies of the labors of various observers relative to febrile diseases, phthisis, dysentery and rheumatism, and more especially with reference to the value of antipyretic remedies.

Organic chemistry continues to furnish new remedies. A number of new *aromatic compounds* have been investigated, and the groups of antipyretics and antizymotics continue to receive a large share of notice. Antiseptics and remedies of a hypnotic and anodyne character have in like manner received much attention during the years 1887 and 1888.

The providing of remedies of definite strength, and the substitution for crude drugs of their active principles, are important aids to the practitioner of medicine; and hence the artificial production of the vegetable alkaloids is of great practical interest, and the medical profession cordially welcomes every advance of chemistry in this direction.

The crowd of new remedies pressing for therapeutic favor seems ever on the increase, and so numerous have they been during the years 1887 and 1888 that it is difficult to select those which will survive the ordeal of experimental observation and extended criticism.

Many have had but an ephemeral career; others of good promise are still on their trial, whilst a few, as antipyrin, antifebrin (acetanilide), phenacetin,* salol † and saccharin ‡ appear destined to occupy a permanent position in modern systems of therapeutics.

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* *Phenacetin*, analagous in its constitution to antifebrin; its technical name is para-acetphenetilin. It is a nearly white, inodorous, crystalline powder; tasteless; soluble with difficulty in water, but more freely in alcohol and glycerin; insoluble in acids (except glacial acetic acid) or alkaline liquids. It was introduced by Drs. Kast and Hinsberg, in 1887, as a reliable antipyretic. Drs. Rohler, Hoppe, Osborne, Grenfell, Leyland, Roe, MacNaughton, Jones and others have shown that it is an efficient antipyretic, and that in cases of pyrexia the action of the drug begins within half an hour after administration. The patient generally perspires freely, and feels drowsy, but comfortable. It has been used not merely as an antipyretic, but also as an analgesic in neuralgia, with good results. The dose for an adult is about 8 grains, and children bear it well. Administered as an antipyretic, in from 4 to 12 grains, it exerts a greater and more prolonged effect upon the temperature than antipyrin, and causes neither rigors, vomiting nor nausea, but rather a sense of well-being, the patient frequently becoming cheerful and desirous of food. Dr. Jones highly recommends phenacetin in the evening pyrexial rise of phthisis, and states that it does not produce any collateral unpleasant effects.

† *Salol.* Prepared by Prof. Nencki; a derivative of salicylic acid, in which one atom of hydrogen is replaced by the phenol group; white, insoluble, tasteless powder, with a faintly aromatic odor. In the organism, it splits up into two

1. *An extreme degree of fever, with or without complications, is dangerous and must be controlled.*

Antipyretic treatment is necessary, (*a*) when the temperature exceeds 39.5° C. (103° Fah.); (*b*) when the fever is of long duration; (*c*) when there are complications.

In addition to the direct substraction of heat by cold applications, we may, with due caution, have recourse to antipyretic remedies.

Quinine is often to be preferred, because of its undoubted action in some infective principles and its more lasting effects.

Until we understand better the theory of fever, we cannot handle antipyretic drugs as satisfactorily as we desire.

A distinction must be drawn between fever and its pathogenic agent; for an antipyretic, such as antipyrin or antifebrin, may not act on this agent, and so may have an independent, and therefore transitory action; or it may influence this agent, as quinine appears to do in some diseases.

2. Heat in excess acts as a direct poison to the living human organism, and the phenomena of severe acute pyrexia are largely due to the effects of the increased heat.

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compounds, salicylic acid and phenol (carbolic acid, of which it contains 3.8 per cent.). The decomposition appears to be effected by the pancreas, and takes place in the duodenum, and not in the stomach. No toxic symptoms are produced, because the phenol passes through the stomach in combination, and is not absorbed. Phenol possesses antipyretic and antiseptic properties, and may be employed in cases where salicylic acid and sodium salicylate are badly tolerated. I have employed this drug in the treatment of fever, in acute rheumatism, phthisis pulmonalis, and in acute and chronic dysentery. It appeared to produce good results in many cases of dysentery. Dr. R. H. Day, of Baton Rouge, has used salol with success in the treatment of typhoid fever. Salol being chemically a salicylate of phenol, and as it remains intact in the stomach and splits up into phenol and salicylic acid in the duodenum and small intestines, it probably acts not merely as an antipyretic, but also as a germicide and local antiseptic in the bowels in enteric fever and in dysentery and diarrhœa.

‡ *Saccharin.* A coal-tar derivative, discovered by Fahlberg, which exceeds cane sugar about 200 times in sweetness. It passes unchanged through the organism into the urine, and may be administered with impunity in from 30 to 75 grains. I have employed saccharin with great benefit as a substitute for sugar in the treatment of diabetes mellitus. In this disease a very small quantity of saccharin suffices to satisfy the desire for sugar. I find opium, ½ to 1 grain doses, in 4, 6 or 8 hours, of great value in the treatment of diabetes mellitus.

(*a*). External heat, applied to the body of the normal animal, so as to elevate the temperature, produces derangement of the circulation and nerve functions, similar to those seen in *fever*—the intensity of the disturbance being directly proportionate to the rise in temperature.

(*b*). Heat, applied locally to the brain or to the heart, produces, in the functions of the organ, those disturbances which are familiar phenomena of fever, the intensity of the disturbance being directly proportionate to the excess of heat in the organ.

(*c*). The withdrawal of the excess of heat in fever is followed by a relief of the nervous and circulatory disturbances.

(*d*). In long-continued pyrexia, but sufficiently intense to induce immediate serious symptoms, the liver, spleen, kidneys, voluntary and involuntary muscles, blood-vessels, and even the nerve-centres, undergo a granular degeneration. In typhoid, typhus and relapsing fevers the muscles undergo a peculiar granular degeneration. In yellow fever the fatty degeneration of the heart, liver and kidneys is rapid and extensive, especially in those cases characterized by hyperpyrexia.

From the preceding well-established facts, it is evident that in all fevers a primary therapeutic indication is to reduce the temperature.

3. The reduction of the temperature in fever should, if possible, be accomplished by checking the excessive production of heat; but various circumstances, as the condition of the patient, and the peculiar action of the febrile poison and of the antipyretic agents, nerve centres and tissue changes, may force the physician to abstract heat by such mechanical means as the *cold baths*.

The clinical evidence in regard to the value of cold baths, systematically and carefully applied, is of an extensive and uncontrovertible character. Dr. Ernst Brandt has made a collection of nineteen thousand and seventeen cases of fever in which the antipyretic treatment by cold baths was carried out with more or less care, the average mortality being 7.8 per cent. In this mass are included typhoid and typhus

fevers, with all forms of primary and secondary complications, occurring in all ages, in both sexes, in epidemics and in isolated cases, in hospital and in private practice, in civil and in military life, during war and during peace. Brandt has made a second series of statistics, including five thousand five hundred and seventy-three cases, in which the treatment was made under the direction of a physician who had confidence in it; the mortality is 3.9 per cent. These statistics are upon so enormous a scale that, if it be possible to demonstrate by statistical arguments the results of any method of treatment whatever, it must be considered proved that the cold-water treatment in the continued fevers is attended with a remarkably small percentage of deaths.

All those physicians who advocate the use of cold baths in typhoid and typhus fevers appear to be agreed that, although the mortality is very much reduced, the duration of the disease is shortened only in so far as complications are avoided. As, however, the patient is left by the disease much stronger than he is when the expectant method is pursued, convalescence is much more rapid than under the old plan. By the antipyretic treatment the intense prostration, delirium, stupor, carphologia, involuntary passages, and other manifestations of the typhoid state, are greatly lessened. In the opinion of many experienced and learned physicians, *the cold bath, in the treatment of typhus and typhoid fevers, is of the utmost value, and is much safer and more efficient than are antipyretic drugs.*

4. Antipyrin and antifebrin are agents of great power for the control of the heat centres in febrile diseases, and they appear to be equally valuable in the control of the nervous centres in certain cases of paroxysmal neuralgia, and in painful affections accompanying many acute and chronic diseased conditions.

5. Antipyrin acts in acute rheumatism in a similar manner to salicylate of soda, promptly reducing the temperature and relieving the pain in the joints. With both remedies, there is the same tendency to complications and relapses. Antipyrin, however, has the advantage of not deranging the appetite, and of less frequently producing poisonous

effects. Antipyrin may be given in acute rheumatism when salicylate of soda has failed, or is prohibited by enfeebled digestion, the weak state of the heart, or by cerebral symptoms. Antipyrin has been used in from 15 to 20 grain doses, every 4, 6 or 8 hours, daily, with benefit in acute rheumatism, muscular rheumatism, and rheumatic neuralgia. Antipyrin has something more than a mere antipyretic action in rheumatic fever, and should be regarded as, to a certain extent, antidotal. The practitioner should, however, remember that complications and relapses are frequent after the use of either antipyrin or salicylate of soda. There is therefore danger that a patient, relieved of the pyrexia and the pain in his joints, should consider himself well, and discontinue treatment. I have seen numerous instances in which it was evident that antipyrin and salicylate of soda did not *cure* acute rheumatism in the short period in which they relieved the symptoms; either the peccant matter causing rheumatic fever and its pathological complications is not fully eliminated, or else the patient is left in a condition in which a slight chill, or exertion, or exposure to a cold draught, to wet and rain, and to night air, or the subjection to mental worry and fatigue, may bring on a relapse, accompanied by complications which may become permanent and dangerous if neglected. The treatment of rheumatism with various remedies, as salicin, salicylic acid, salicylate of sodium, iodide of potassium, iodide of mercury, and other agents, was fully and elaborately discussed in Chapter VII, second volume *Medical and Surgical Memoirs*, pp. 993–1143.

We deem it necessary in this connection to record only a few additional practical observations.

The slower action of the older methods of treatment, as the alkaline potash agents, acted in this respect as an actual safeguard to the patient, preventing the too early discontinuance of the treatment before the complete removal of the disease.

6. I have found the method which I have recommended in my clinical lectures, and in hospital and general practice during the past ten years, in the treatment of acute rheu-

matism, to stand the test of enlarged and abundant experience. This may be presented in brief as follows:

(a). *Local treatment.* The patient should be placed in a warm, comfortable bed, with soft, warm woolen sheets, or covers, above and below. The inflamed and painful joints to be rubbed with the following liniment:

℞. Tincture of opium.....
Ttincture of aconite.....
Tincture of iodine.....āā f ℥ss
Olive oil.....f ℥iss
Mix. S.—Use as a liniment every 4 or 6 hours.

The joints may also be painted by means of a brush with equal parts of the tincture of opium, aconite and iodine. The local application of the tincture of iodine is the most efficient of all measures for the absorption and removal of the effects of the products of the rheumatic inflammation in the joints.

To remove the effects of the rheumatic inflammation from the swollen, stiffened and injured joints, the tincture of iodine must be frequently applied over the entire joint, and the treatment must be daily and persistently pursued. The simple tincture of iodine is to be preferred to the compound tincture. The liniment above recommended may be used alternately with the tincture of iodine. Absorbent cotton, either dry or wet with hot water, should be wrapped around the inflamed joints, and these should be surrounded lightly with a roller bandage of red flannel passed around or over the cotton; the whole inflamed joint, with its cotton and flannel, to be well wrapped in oiled silk. It is of great importance that all pressure should be removed from the inflamed joints by the free use of cotton surrounding the inflamed parts. The ordinary raw cotton, or cotton batting, will answer the purpose, although on some accounts the absorbent cotton is to be preferred. The application of the absorbent cotton, saturated with hot water and then wrung out, applied hot to the inflamed joints, and surrounded by the oiled silk, is of great value for the relief of the rheumatic local inflammation and pain.

(*b*). The bowels should be opened by a purgative. In the

beginning of the treatment, five grains each of the mild chloride of mercury and five grains of the carbonate of soda, well triturated together, and administered by the mouth, is in most cases an efficient and valuable purgative. The bowels should be kept open, with saline purgatives, as the citrate of magnesia, bitartrate of potassa, Epsom salts (sulphate of magnesia), Glauber salts (sulphate of sodium), and Carlsbad salts, throughout the attack.

(*c*). Excessive pain may in certain cases be mitigated by the judicious use of the best Turkey opium, in pill—from one-half to one grain may be used, every 4, 6, or 8 or 12, or 24 hours, according to the urgency of the symptoms. One-fourth of a grain of morphia, with one-hundredth of a grain of atropia, may be used by subcutaneous injection, instead of the opium by the mouth.

(*d*). To relieve the rheumatic fever, the salicylate of sodium is used in combination with the officinal solution of the acetate of ammonia, in the following manner:

℞.—Salicylate of sodium.....ℨij
Solution of the acetate of ammonia (U. S. P.) f. ℨiv

Mix. Dose, a tablespoonful, with two of cool water, every 2, 4, 6 or 8 hours, according to the nature and severity of the symptoms.

I have been led to attribute great value to the solution of the acetate of ammonia (spirits of Mindererus) in this combination. I have held the view that the acetate of ammonia acted as a diuretic and blood depurant, and at once altered the physical and chemical composition of the blood and eliminated the materines morbi of rheumatism. In this portion of the valley of the Mississippi, rheumatism is sometimes complicated with, and underlaid by, malarial poisoning and malarial paroxysmal fever, and in such cases the free and persistent use of quinine is indicated. This agent may often be administered advantageously in combination with Dover's powder.

7. *Salol* (salicylate of phenol) has been recommended in the treatment of acute rheumatism, as a substitute for salicylate of soda, which sometimes produces severe gastric irritation, and is sometimes objected to by patients on ac-

count of its mawkish sweet taste. Salol is colorless and tasteless, remains intact in the stomach, but in the duodenum splits up into phenol and salicylic acid, and it has been administered in doses ranging from 10 to 30 grains to an adult, with benefit in the treatment of acute rheumatism, and as an antipyretic in various febrile diseases and conditions.

Whilst the physiological action of salol is similar to that of salicylate of sodium, the phenol liberated in the duodenum produces no apparent symptoms beyond the discoloration of the urine.

Salol has been given in powder in daily doses of from 90 to 120 grains, with benefit in acute articular rheumatism, muscular rheumatism, lumbago and omalgia, with good results by Heerlich; and Bulscholoski concludes from his experiments in the Breslau Hospital that salol is a specific in acute articular rheumatism. Kicefeld has used salol in the treatment of thirty-five cases of rheumatism and neuralgia with the best results, and with no ill effects. Kicefeld rarely gave as much as 30 grains daily, as good effects were obtained from 15 grains. On the contrary, the results obtained by Rosenberg were not so favorable as those recorded by various observers; his cases of acute rheumatism yielded promptly to doses of from 90 to 120 grains per day, but relapses and complications were frequent. He found that unpleasant symptoms, such as vomiting, nausea and ringing in the ears, were often met with, and sometimes were very severe.

Herrlich observed that salol was more powerful than salicylic acid in relieving rheumatism, 10 grammes of salol having more effect than the 6 grammes of salicylic acid contained in it. The question then arises whether the carbolic acid contained in the salol has any effect in the rheumatism. Lahli considers that it has, but Kunze and Senator have shown that subcutaneous injections of carbolic acid have no effect upon the rheumatic process. Herrlich finds that, in spite of the elimination of the carbolic acid and the darkening of the urine, symptoms of carbolic acid poisoning do not ensue upon the internal use of salol when given in

the large doses mentioned. None of these observers, however, have given such doses of salol as are given of salicylic acid in the treatment of machlagan. The statement of Herrlich, that salol has a more powerful anti rheumatic effect than the amount of salicylic acid contained in it, has not been confirmed by other observers.

Dr. Robert Magenter, of St. Mary's Hospital, well observes that if we were to give salol for the sake of the salicylic acid it contains, and were to prefer this preparation because it does not produce the gastro-intestinal disturbance occasionally brought about by the salicylates, we should be compelled to give at the same time a colossal dose of carbolic acid. Thus an amount of salol corresponding to 20 grains of salicylic acid would contain nearly 13 grains of carbolic acid, and it would be a matter of surprise if this repeated hourly in the early stages of acute rheumatism did not produce symptoms of carbolic acid poisoning. In cases, however, where only small doses of salicylic acid are required, and not often repeated, salol will be found an agreeable and efficient substitute.

My own experience with salol in the treatment of acute and chronic rheumatism has not impressed me sufficiently with its value to lead to the alteration or abandonment of the method previously given with the salicylate of sodium combined with the solution of the acetate of ammonium.

In dysentery, attended with foul, fœtid and stony discharges, I have found salol to be of marked benefit. The salicylic and carbolic acids liberated in the intestinal canal appear to act as antiseptics, and as most valuable remedial agents, in not only arresting putrefactive changes and preventing septic poisoning, but also in healing the ulcerations of the mucous membrane which characterize some forms of dysentery. If salol possesses any valuable effects in the treatment of typhoid or enteric fever, it must be referred to a similar antiseptic and curative effect upon the enlarged, softened and ulcerated glands of Peyer.

8. Antifebrin has proved valuable in the treatment of acute rheumatism. Eisenhart employed antifebrin in the treatment of thirty-four cases of acute articular rheumatism,

and considered that it is no less useful than antipyrin. He gave the drug as a powder, in four-grain doses, six or eight times a day, for the first three days; then he allowed one day's interval, and resumed the treatment in smaller doses.

Gruneberg has used antifebrin in the treatment of typhoid fever in doses of $7\frac{1}{2}$–$3\frac{3}{4}$ grains; during the period of maximum temperature $7\frac{1}{2}$ grains are required, and this reduces the temperature about 3.6 degrees, but a reduction occurs in only half to three-quarters of an hour. This dose may be repeated in six or seven hours in grave cases. He has given 30 grains of antifebrin in one day without evil results. Copious sweating follows the administration of antifebrin in some cases, and sometimes the subsequent rise of temperature is accompanied by violent shiverings.

Dr. Cauldwell, of New York, after observing the effects of antifebrin in the feverish attacks of phthisis, arrived at the following useful conclusions, the accuracy of which we have had ample opportunities to confirm:

a. Antifebrin is the best drug with which to control the chills and fever of phthisis. With it we can at once check these depressing symptoms.

b. It does not produce the unpleasant effects of quinine, salicylic acid, antipyrin, thallin or resorcin.

c. Chills collapse or semi-intoxication are not caused by it.

d. In many patients it induces sweating.

e. It diminishes the frequency of the pulse, and usually strengthens the heart's action.

f. Occasionally it produces cyanosis. This happened but twice in thirty cases.

g. It does not interfere with digestion, but on the contrary increases the appetite.

h. Even when the stomach is in an irritable condition it can be retained.

i. It increases the secretion of urine in the majority of cases.

j. It tends to quiet the nervous system, and produces a feeling of "well being" in the patient.

There is some difference of opinion as to the range of

dosage of antifebrin (acetanilide), but, according to the majority of observers, 4 to 7 grains are a suitable dose in febrile cases, which may be repeated two or three times, but as a rule 30 grains a day is a sufficient quantity. Much, however, depends on the aliment. Phthisical, weakly and anæmic patients seem easily affected by antifebrin and to require small doses. Larger quantities are apt to cause cyanosis, cardiac weakness, and collapse.

In typhoid fever, 4 grains every six or eight hours are often sufficient. For rheumatic fever and pneumonia larger doses are usually required.

For the relief of pain in neuralgia, etc., from 8 to 15 grains may be given for a dose; and even in doses of 2 grains it efficiently reduces temperature. The duration of the reduction of temperature is usually from three to six hours.

9. Although introduced at first as an antipyretic remedy, antifebrin has since been strongly recommended as a sedative and hypnotic in the nervous system, in locomotor ataxy, sciatica, lumbago, acute alcoholism, and other nervous ailments.

In like manner antipyrin has established a reputation for its influence in pain, whether administered by the mouth or hypodermatically, in the treatment of various nervous diseases and painful affections, as muscular rheumatism, sciatica and neuralgia, and migraine, the uterine pains after pregnancy and even during delivery. The power of antipyrin not merely to relieve but also to cure the distressing pains of migraine is now well established.

10. A vast field for therapeutic experiment and research has been opened by the discoveries of organic chemistry. It is important to accumulate evidence in all parts of the civilized world, by the labors, experiments and researches of intelligent physicians, physiologists, pathologists and therapeutists as to the following points:

a. The chemical properties of the various antipyrites and their physical and chemical relations to the blood, circulatory and nervous systems.

b. The therapeutical, physiological and toxicological effects of the various antipyretic remedies.

c. The temporary physiological and permanent pathological effects upon the animal economy in antipyretic remedies.

d. Experiments illustrating the relative potency and effects of the various antipyretic remedies.

e. Carefully registered cases of disease illustrating the effects and relative value of antipyretic remedies.

ART. III.—**The Value of Antiseptic Treatment and Protection for the Membrana Tympani in Perforations the Result of Otorrhœa.***

By LAURENCE TURNBULL, M. D. Ph. G.

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It will not be necessary at this late date to advocate or dwell at length upon the great value, nay, absolute importance of antiseptic surgery. Its latest triumphs and most brilliant results have been shown in brain surgery. It is not only possible to reach and drain abscesses in the temporo-sphenoidal lobe of the cerebrum, but it is considered possible to save life by opening into the cerebellar fossæ and removing pus from the neighborhood of the lateral sinus. The antiseptic treatment of purulent disease of the middle ear was a natural sequence; this was soon followed by the use of boracic acid in powder and solution and still later by the superior antiseptic agent bi-chloride of mercury in solution, then the use of the antiseptic with wool and gauze; also the protecting agency of oiled silk. These protectors and artificial membranes act so as to prevent the entrance of diseased germs from the air. As long as there is a discharge, open the Eustachian tube, wash with the solution, then apply the gauze, and when the suppuration has ceased,

*Paper read before the Section of Laryngology and Otology of the American Medical Association, Newport, June 25th, 1889, revised and with additions.

employ the oil silk, cut about the size of the membrane applied to the perforation, and when the parts are dry, use the wool.

Some of the causes preventing a cure of a discharge from the ear, are :

1st. The perforation being so small that injections cannot be made to act or penetrate the tympanic cavity. These openings must be enlarged.

2nd. Concealed polypoid growths. These must be snared or touched with chromic acid.

3rd. A circumscribed area of carious bone involving the ossicles or attic or mastoid antrum. They are to be removed through the mastoid.

4th. A fistulous canal caused by necrosis which forms in the upper posterior wall of the osseous external auditory canal. This is to be kept clean by the mercurial solution; and carious bones or granulatus are to be removed by the sharp spoon.

Various attempts have been made to cover perforations of the membrana tympani. Berthold, and others, attempted to close these perforations by grafts of skin from the arm. These proved too thick, and too difficult to adapt to the edge of the perforation. He then abandoned this for the lining membrane of the chicken's egg, which is known to be vascular and capable of resisting putrefaction for some time. A fresh egg only must be used, and a suitable sized piece applied to the perforation by means of an especial canula.

Desbousquet substituted for the last named membrane bits of interdigital skin from the frog's foot. Baratoux has used the nictitating membrane of the frog's eye for the same purpose with good results. He also has used it to restore mucous membrane in certain forms of rhinitis.

Perforations in young children are more difficult to treat. Inspection often fails to reveal a perforation on account of the difficulty of getting a full view of the membrana tympani. This is due to the position of the drum membrane relatively to the meatus. In the infant at birth, the membrana tympani is almost horizontal, and as a consequence

the walls of the meatus are in contact. At this age the osseus meatus is almost entirely wanting. In order to gain a view of the membrane in infants, it is necessary, instead of straightening the meatus by drawing the auricle upwards and backwards, as is done in the adult, to draw the auricle downward and outward, and in using the speculum to look upward.

Cases of Antiseptic Treatment—Otitis Media Chronica with Perforation. Long Continued Discharge and Noises Entirely Relieved with the Use of Antiseptic Covering, as a Means of Protection from the Air.

Nov. 3, 1888.—Mrs. A. C., aged 55, from the interior of Pennsylvania, has been under treatment for perforation in both ears, has a tendency to rheumatic gout, great depression and heart enlargement and tinnitus from long continued nursing, heavy lifting, etc. To relieve noises, a one per cent. solution of nitro-glycerin was directed; also lithiated potash for rheumatic pain. The ear was cleansed and then treated with ointment of the yellow oxide of mercury, morphia, etc.

For the slight discharge I applied antiseptic protectors [gauze sterilized by a solution of the bi-chloride 1–4000] in both ears. No pain was experienced, but considerable neuralgia was in the nape of the neck, for which bromide of sodium, 30 grains at bed time, was prescribed, and tincture of iodine was painted over the mastoid.

It is not necessary to enter into detail, save to say that the discharge ceased, and one protector remained intact for months. No inconvenience resulted except a slight rustling noise was heard in left ear, and but slight fullness remained in right. The use of the bromide was continued, also the local application of tincture of iodine.

Mrs. Robert M. I., aged 20 years, chronic otorrhœa, with three perforations in right ear and two in the left. She has had more or less discharge for thirty years, and has been under the best of care in New York and Philadelphia, but only received temporary benefit. By the use of equal parts of glycerin and tinctura ferri sesqui-chlor. to the throat and ear, the perforations in the right ear closed. There still remain two perforations in the left ear which, when the discharge ceased, were covered with antiseptic protectors. Now the patient is much improved in her hearing, no pain and no discharge.

I might occupy your time in details of at least fifty similar cases of all ages occurring within the last two years, some of them of the most severe and protracted character, which have eventually been either cured or else so protected that they are no longer distressed with the ear.

The protectors or artificial membranes have another advantage in that they, in the majority of cases, while assisting the healing of the perforation, improve the patient's hearing by support and pressure on the ossicles.

1502 *Walnut St.*

Clinical Reports.

Congenital Absence of the Uterus and its Appendages.

By LOUIS A. BRYAN, M. D., of Houston, Texas.

Some six weeks since, I was applied to by a mulatto woman and her husband for relief from an obstruction of the vagina which prevented perfect coition. After a preliminary examination, I appointed a day and invited Drs. Burroughs and Autry and Dr. Scott to visit the case with me and assist in an operation, if, after a careful examination, we thought it advisable to make one—my preliminary examination having only gone so far as to establish the existence and location of the obstruction.

At the time appointed we met at the residence of the parties, and after the necessary preliminary arrangements were complete, and the subject in position for an examination, we proceeded to develop the following condition of the organs.

The external ones were of normal condition and well developed. The index finger, being passed into the vagina, found it in a normal condition in all respects for about two-thirds of its length from the vulva at this point; it was perfectly closed by a membrane of the same character and equally dense and resistant as that of the walls of the vagina. With the index finger in the rectum and a sound passed into the bladder, the vagina could readily be traced to its terminal point, which was abrupt, and beyond which no

tissue of any character could be detected between the finger and the sound except the walls of the bladder and vagina; as far as we could explore there was no trace of a womb discovered. As this settled the question of an operation in regard to opening the vagina, we did not proceed to the painful operation of dilating the sphincter ani and introducing the hand into the rectum to search for a womb, for it was unmistakably demonstrated, that if such an organ was any where located, it had no connection with the vagina.

This subject is a bright mulatto woman rather above medium size, well developed, twenty-five years old, has been married two years, has never menstruated, but suffers at each recurring period with severe pain in the head and feels a heavy sensation and some congestion of the eyes. When about seventeen years old, she was employed as a nurse by a lady of my acquaintance, who tells me that she had to relieve her from the care of the child for one or two days at each period on account of her severe suffering. She complains of no abdominal or other pains except those of the head.

She says that she has sexual desires and enjoys sexual intercourse, at the conclusion of which there is a sense or feeling as if something were in the vagina which she has the desire but not the ability to discharge.

This I consider a case worth sending you an account of and it is respectfully submitted.

170 *Rusk Street.*

"Coca"

Has maintained its reputation as a powerful nerve stimulant, being used with good results in nervous debility, opium, and alcohol habit, etc. The highly variable character of the commercial drug makes it uncertain, however. Robinson's Wine Coca we believe to be a uniformly active article, it being prepared from assayed leaves, the percentage of Cocaine being always determined by careful *assay.*

Offensive Odor of the Breath,

Due to bad teeth or other causes, may be overcome, or at the least greatly abated, by the habitual use of Listerine. Add a teaspoonful to a tumblerful of water for a mouth-wash and gargle, and if a little is swallowed, so much the better. Indeed, a bad breath is not unfrequently caused by the gaseous eructations of indigestion, and for this also Listerine is an excellent remedy, in doses of twenty to thirty drops in a little water.—*Sanitarian.*

Correspondence.

A Vindication of the Study of Hypnotism.

Mr. Editor,—The following appeared in a Lynchburg newspaper on Saturday, Sept. 7th, 1889:

No "Hypnotism" in Theirs—Practical M. D.'s Who Take no Stock in Mesmeric Manifestations.

A special of yesterday from Roanoke stated that "the feature of to-day's (Thursday's) session of the State Medical Society was a lecture by Dr. L. G. Pedigo, of this city (Roanoke), on Neurology, with illustrations, to throw light on the phenomenon known as hypnotism." This statement seemed strange and not at all characteristic of a body of practical physicians, and a reporter of the *Virginian*, learning that some prominent members of the Society were stopping in the city, repaired to the Norvell-Arlington, where he had an interview with Drs. Hunter McGuire, of Richmond, and E. W. Row, of Orange, the latter an ex-President of the Society, several other physicians being present.

Dr. McGuire laughed when his attention was called to the statement and remarked: "This lecture on hypnotism was the 'feature' of the Society's proceedings on the same principle that the performance of the trick-mule is the feature of the circus. It was very well written, but it was on a subject in which the Society takes no interest. I regard hypnotism as nothing more than old-fashioned mesmerism, and take about as much stock in one as the other; which is to say, none at all. There is a rule of our Society—one among the first in the list, in fact—which states that the Society is not responsible for the individual opinions of its members, and that rule applies to this case. The other physicians present fully concurred in this view."

Knowing that reporters, like other mortals, are fallible and do sometimes misunderstand a conversation, I addressed the following note of inquiry to Dr. McGuire:

"Roanoke, Va., Sept. 7th, 1889.

"Dr. Hunter McGuire:

"*My Dear Sir:*—I enclose you a clipping from the Lynchburg *Virginian*, in which is published an alleged interview with you and others on the subject of a paper read by me before the Medical Society of Virginia.

"I feel that I would be doing you a serious injustice were

I to credit the accuracy of the report—particularly as to the pen-marked lines—before calling your attention to its language and requesting a statement on the subject over your own signature. Will you kindly favor me with a prompt reply?

"Pardon this encroachment on your valuable time and believe me to be,

"Yours most respectfully,

"LEWIS G. PEDIGO."

To which I received the following satisfactory answer:

"RICHMOND, VA., Sept, 9, 1889.

"*Dear Sir*:—Your letter and a clipping from the Lynchburg *Virginian* have just been received. In talking to the reporter, I criticised hypnotism and not you. I spoke of hypnotism as a 'trick mule,' and not your lecture. I did not hear your lecture, but heard it spoken of in a complimentary way. I so informed the reporter, and in all that I said I am sure I conveyed to him no reflection upon you. I know that I did not intend to insult a man who had gone out of his way to be polite to me.

"I have no belief in hypnotism whatever. I got into the room when you were making 'passes' over the subject's head. This, with the scene at the table, was what I had witnessed forty years ago under the name of 'mesmerism.'

"It was practiced many years ago by the early Greeks, from whom, probably, Mesmer took the idea. Under different names, it has over and over again been reproduced. It comes now as hypnotism. In a year or two it will again disappear, possibly to be revived in twenty or thirty years.

"It was discarded because it produced hysterical troubles in some, and in some insanity. In women it is unsafe and not free from great danger. To my mind it is associated with 'charms and incantations,' and all who strive to establish medical practice on a scientific basis must discredit it.

"While this is my belief, I can respect yours.

"Very truly yours,

"HUNTER MCGUIRE."

I replied as follows:

"ROANOKE, VA., Sept. 12th, 1889.

"DR. HUNTER MCGUIRE, RICHMOND, VA.:

"*My Dear Sir*:—Your kind letter explaining what you did say in the Lynchburg interview was duly received. Aside from certain essential corrections in the report, it is almost superfluous to say that your frank and gentlemanly

disclaimer of any personal intention in your remarks is amply satisfactory.

"There remains an element of legitimate criticism which is always welcome, and which, involving, as it does in this instance, an impersonal question of some importance, will receive my attention at an early day, under the heading, '*A Vindication of the Study of Hypnotism.*'

"You will pardon the slight liberty I shall take in transferring the discussion from the columns of a daily newspaper to the more appropriate pages of a medical journal.

"Very sincerely,

"Lewis G. Pedigo."[1]

The above correspondence explains itself. In attempting to reply to Dr. McGuire's criticisms, I think I can make myself better understood by briefly outlining the motives by which I am actuated.

In the first place, I hope to be credited for absolute sincerity when I say that any unpleasant *personal* feeling I may have had in the matter is a thing of the past. There is a consideration in some sense personal to myself and which involves a motive more or less egotistic in its character which I am free to confess weighs heavily with me in the present connection. The criticisms, even with the explanation, would naturally leave the impression that I have given prominence in my report to a subject which is entirely irrelevant, inappropriate and devoid of interest to a medical society; and that, in so doing, I have not only made myself ridiculous, but have saddled a burden upon the Society's proceedings which requires an explanation to the public by a leading member. To relieve myself of this reproach in the eyes of members of the Society who were not present is prominent among my incentives; and yet I hope to accomplish this result incidentally in the treatment of a subject of broader general interest to the profession.

Beyond this I am particularly desirous that other members of the profession in Virginia who feel attracted toward such investigations shall not be discouraged or repelled by Dr. McGuire's severe condemnation. In attempting to counteract such an influence, I realize at the outset one es-

pecial difficulty. It is due, not to any weakness in the position which I propose to defend, or anything formidable in the criticisms which have been urged against it, but solely to the eminence of the critic. We Virginians are hero worshippers by nature. Whenever a man attains distinction in any profession there is a disposition among us to regard him as high authority on any subject upon which he assumes to speak. Dr. McGuire knows that such a thing is absurd. Many of the thousands who are influenced by his opinions do not. It is not personal to speak of these things; it is merely an allusion to the vast complexity of our civilization, by reason of which if a man is authority on one subject or set of subjects, he is *therefore* not authority on another. No man in Virginia feels a more sincere pride in Dr. McGuire's reputation in surgery than the writer of these lines; no man is more gratified by the growing proofs of his eminence among the distinguished surgeons of earth, his splendid achievements in the great field of abdominal surgery; and finally, by the noble example he has set for those upon whom his mantle may fall, by remaining among us and giving to his own Medical Society of Virginia the benefit of his name, instead of going north to seek metropolitan fame as so many of our best men have done, Still

> "The age is gone o'er
> When a man may in all things be all
> * * * * Our own
> Is too vast and too complex for one man alone,
> To embody its purpose and hold it shut close
> In the palm of his hand. There were giants in those
> Irreclaimable days; but in these days of ours
> In dividing the work, we distribute the powers."

So I am saying nothing disparaging to Dr. McGuire when I say that there are other men who are recognized the world over as authorities on the *brain and nervous system*, whose aggregate opinion on a question of the kind under consideration is of incomparably greater weight than the off-hand verdict of any man who avows that he "takes no stock" in the subject. To such men I shall appeal on the question of weight of professional authority.

Now, as to the views expressed by Dr. McGuire, it must be said that, positively and plainly as he attempts to speak, his

exact position is very difficult to locate. He starts off in his letter with this statement: "I have no belief in hypnotism *whatever*." This seems definite and satisfactory enough in itself. It means, if the English language can afford expression to a thought, he does not believe in the genuineness or reality of the so-called "phenomena of hypnotism." And yet when he comes to condemn it as a therapeutic measure, we find him attributing to this thing (or this *nothing*) results as tangible as its most ardent advocate ever claimed for it. It "produces insanity, hysterical symptoms," etc.; "it is not free from great danger." Furthermore, in its outward effects it stands in different relations to the sexes, just as do certain diseases and drugs—thus showing conclusively that it is subject to definite laws as only *real* phenomena can be Now we are bewildered. When we attempt to sum up the whole creed, we find that he regards hypnotism as a subtile and (systematically) dangerous *nonenity*, a belief which strikes us as bearing a pretty close resemblance to a contradiction in terms.

But suppose we take his first proposition just as he has expressed it. What can we say of it? We certainly can not refute such a position on paper. That is to say, we can not frame an argument which will convince the sceptical of the reality of hypnotism. Why? Simply because the sceptics do not reason on this subject as on other subjects. They start out by discrediting all the facts adduced, no matter how well authenticated, no matter how many witnesses in all parts of the world, and for a good many years testify to the same things—no matter about the character of the witnesses, their prestige in their respective professions, or their reputation in the various branches of science.

Let us see what a man has to reject in order to say, "I have no belief in hypnotism whatever." When we come to look at the status of this subject to-day, we find that it is not the spasmodic unsubstantial movement which Dr. McGuire regards it. He tells us it has figured under various names (which is true) and that it *comes now* as hypnotism.

It is a matter of history that the word "hypnotism" has

been used in this connection, in medical and scientific circles for just forty-nine years, and that it was originally applied by a distinguished English surgeon, a Fellow of the Royal College of Surgeons, James Braid, of Manchester.

As to another impression under which Dr. McGuire seems to labor, viz: that the study of hypnotism is just at this time a *fashion* or *rage* which will pass away in a year or two. Let us examine the facts. This study was brought to the attention of the profession and placed upon a scientific basis by Braid in 1840. It required 30 years to enlist in its behalf anything like general attention in the profession, during which time a fight between a too ardent advocacy and an equally silly scorn and contempt raged almost perpetually. But let us pause to remember that it has taken Lister and his co-laborers more than a quarter of a century in a later and a fast epoch to convince the surgical world of the more tangible realities of an antiseptic treatment.

I clip the following from an editorial of three columns in a leading American medical journal, (*Therapeutic Gazette*) which has just reached my desk and which is dated September 15th, 1889. "As long ago as 1866, Tiebault, of Nancy, published the first book discussing the treatment of disease by hypnotism, but it was not until the attention of Prof. Bernheim was attracted to the subject that the importance of the steady, persistent, clinical work of Tiebault received recognition. Prof. Bernheim's book appeared in 1884, and to-day, almost every large city of Europe has one or more clinicians devoted exclusively to the practice of the system inaugurated by Tiebault, while the literature of the subject would fill several book shelves." In 1878, Charcot, with his gigantic powers and his world-wide fame, took hold of the subject in earnest and presented it in systematic shape to the world. From that time literary and experimental work assumed enormous proportions. The clinicians of France, the physiologists of Germany, the psychologists and alienists of England, and the specialists of America, all have contributed to the general activity in the investigation. The movement is so great that a short review could give no fair idea of its proportions. The mention of

Charcot, Bernheim, Liegois, Tiebault, Luys, Binet, Gauthier, Richet, Beaunis, and Taine, of France; Shneider, Mall, Cattie, Hartman, and Dessoir, of Germany; Milnes, the Macallisters, Maudsley, Robertson, of England; Minot, Bowditch, Hammond, Dana, Seguin, and Beard, of America, would only give a meagre hint of the illustrious medical *leadership* in this investigation.

In this list will be found men whose names are an ornament to the medical profession, whose original researches are an essential part of the history of progress in the study of the brain and nervous system for more than twenty-five years. Associated with them are professors of science in the great centres of learning, Paris, Berlin, Vienna, St. Petersburg, London, Oxford, Cambridge, Edinburg, Dublin, at Harvard, the Universities of New York and Pennsylvania, John Hopkins and other institutions in this country. Eminent men in all the learned professions, representative leaders of thought and of the intellectual life of the age, such as Gladstone, Ruskin, Tennyson, Wallace, Adams, and Balfour, are all intensely interested in the subject.

The subject is lectured upon in almost all the medical schools of every civilized land, read of and discussed before medical societies all over Europe, written up in the medical journals of every description—and especially in the most prominent journals devoted to the nervous system. There are not less than three journals devoted exclusively to hypnotism. An International Congress of medical and scientific men was held in Paris this month on hypnotism alone. This is the movement, steady and cumulative as it has been for nearly fifty years, sustained as it is by the brain power of the great men of the medical profession and the leaders of thought in every department of life—this is the movement which is to be whistled down the winds in a casual talk with a newspaper reporter in the office of a Lynchburg hotel! Can it be done?

In order to "have no belief in hypnotism whatever" it is logically necessary to reject all the immense mass of evidence which has been accumulated by the labors of these

men of science through all these years. It is necessary, in other words, to assume that a very large number of educated men scattered throughout all civilized nations who have earned for themselves the character of leaders in the search after truth, and who are looked upon as worthy to rank among the greatest benefactors of the race—have decided with strange unanimity, for unaccountable reasons, to thrust a palpable fraud upon the world, as that, by a still greater miracle of co-operation, the various subjects of their experiments—widely separated, selected almost at random, and of all degrees of intelligence and education—have succeeded in deceiving the same men so thoroughly and with such wonderful similarity of method, that the learned experimenters actually imagine they discover laws underlying and controlling the alleged phenomena.

Now, scepticism is a good thing. It is the conservative power of the age in which we live. But, when it goes to such extremes as this, it seems to me it drifts us into a greater degree of credulity than that which we are striving to avoid, by requiring us to believe things which are more incredible than the original object of our doubt. The neurologists and psychologists of our profession are unanimous as to the reality of hypnotism, however widely they may differ on subordinate questions. These are, above all others, the men who have had an opportunity to know, and I think I am safe in challenging Dr. McGuire to find three distinguished authorities on the brain and nervous system on earth who will agree with him in disclaiming any "belief in hypnotism whatever." At this time I cannot recall *one*—but I say three for safety. Those who are studying the subject now are not debating the question of the reality of these phenomena. They no more think of discussing this question at this late day than they would think of framing an elaborate argument to prove the practicability of an electric telephone. They take it for granted as a plain established fact, which any man, who has the opportunity can witness for himself. They *are* discussing and investigating the relations of hypnotism to hysteria, and

other neuroses, the significance of the principle of suggestion, the bearing of hypnotism on criminal responsibility, the mode of its action and its effect upon the physiological functions of the brain and other questions unsettled and of current interest.

I come now to what I must be excused for regarding as the reason above all others which accounts for whatever antipathy to hypnotism now exists among medical men. It is a sentimental objection I quote: "To my mind it is associated with charms and incantations." The only answer to this objection is—"What of it?" Suppose it is associated with charms and incantations. Do we find in this criticism the true scientific spirit? It has been my understanding that the first question which a scientist asks is, whether an alleged fact is a fact? To his mind one fact is just as respectable as another. In the world of science there is nothing unclean. Let us see the effect of such an objection applied elsewhere. Shall we discard pills because the historic pill was a spherical piece of metallic antimony and was used over and over again—a precious pill being handed down from generation to generation until it became an heir-loom and was the object of such *superstitious* regard that invalids came from far and near to borrow or hire an *old* experienced family pill? Shall we feel the less respect for the practice of medicine because its history is associated in our minds with all the uncanny notions which went to make up the art in earlier years, and which even now prevail to a great extent among a large and ignorant majority of mankind? Could our civilization afford to spare the science of chemistry with all its utility, its accuracy and symmetrical beauty, because it was evolved out of the magic and superstitious dreams of the old alchemist? On the contrary, let us modestly bear in mind the impressive truth so well expressed by Prof. Youmans, when he said, "All the sciences have had their origin in the first rude actions of ordinary minds."

It seems to me the true interests of science and humanity are best subserved by men of cultured minds taking hold of these beclouded subjects, separating the elements of fact and fancy and diffusing among the people a real knowledge of

what actually occurs. Thus the march of enlightenment is promoted and the twin sister hags—ignorance and superstition—are crowded off the field of human thought and action.

The study of hypnotism, for reasons too tedious to review, is in an earlier stage of evolution than many other departments of science. For this reason we should regard the subject as pregnant with interest and promise for the future.

I feel under no particular obligation to defend hypnotism as a therapeutic agent, since I did not touch upon this aspect of the subject in my paper. Still, if I were asked for an opinion, I would say that its application to the treatment of disease is, for the present, very limited, and not of any great value. What it promises for the future, I would not undertake to say.

Dr. McGuire's objections to its therapeutic use are not tenable. When he says "It was discarded," he surely does not mean it has been very generally discarded. The editor of the *Therapeutic Gazette* himself is supposed to keep himself correctly informed on all the general therapeutic movements in Europe and America He is regarded on both continents as authority on such subjects. We have already quoted him to the effect that "To-day almost every large city of Europe has one or more clinicians devoted exclusively to the practice of the system inaugurated by Tiebault." In another connection, in the same editorial, he says, "The rapid spread of the system and the results said to be achieved certainly require that American physicians shall make for themselves clinicial studies."

The *real* objection to hypnotism as a therapeutic measure, is that it does not accomplish enough. A remedy is never discarded on account of the danger of its use, unless that danger is out of all proportion to its beneficial results. Such an objection applies to a large number of our best and most valued agents, and yet we continue their use. Let us take a recently developed method of treatment, make a comparison and see if the criticism is consistent. The suspension

treatment of locomotor ataxia is known to be very dangerous. If we pause here and attempt to form some rough idea of the hundreds of thousands who have been hypnotised by professors of science, by professional mesmerists and quacks, by boys at colleges and universities, by the various practitioners of "faith cure," "mind cure," "christian science" and the like, and then consider the fact that notwithstanding a very large majority of these seances have been held without intelligent supervision, the serious results reported have been very few indeed, we can form some general estimate of the degree of danger incurred. On the other hand, when we look at the statistics of the suspension treatment, we find that with all the warnings and precautions with which it has been hedged about, three deaths were reported before 600 cases had been treated? As I write these lines I have before me the latest number of a *Medical Journal* in which is reported still another death from the use of the same treatment. We may say further, that although some of the contra-indications and dangers are understood, others are fully as obscure and as difficult to predict or avert as the comparatively slight dangers of hypnotism. In face of all this, is the suspension treatment discarded? Does not Dr. McGuire use it day after day? I hope I am not exhibiting unwarrantable or unprofessional curiosity; but may I not properly ask if Dr. McGuire and other busy practitioners would not come on a witness stand and admit that they sometimes even direct patients to use this treatment without the immediate supervision of the doctor at every seance?

There is something said in a famous "old classic" about straining at a gnat and swallowing a camel. I might suggest here that the mode of action of the suspension treatment is still unexplained, after all the efforts in this direction. It is just as empirical therefore as hypnotism. And for this reason "those who strive to establish medical practice on a scientific basis" might discredit it if they did not know that our best and most rational practice is developed out of just such modest beginnings. Really the therapeutic use of hypnotism is the least important aspect of the subject. Hypnotism is of interest because it throws light upon

related physiological action, and because it promises to help us solve some of the psychologic problems which have puzzled the thinkers of all ages.

It would be a poor compliment to a Medical Society to say that it takes no interest in a subject because it does not furnish a direct and valuable means of treating a disease. Our medical education would indeed occupy a low plane if we should adopt a strict utilitarian view, which would prevent us from interesting ourselves in questions of pure physiology, even if they promised not even an indirect practical result.

I will take the liberty of saying just here that when I read a report on hypnotism before the Medical Society of Virginia I felt that I had never before addressed a more strictly attentive audience. I hope that I may not disgust my readers with any apparent egotism when I add that a very large proportion of those present—I may safely say a majority—came to me at different times afterwards and assured me that they took more interest in this particular subject than anything else which was discussed during the entire session of the Society. There was no necessity to say these things as a matter of empty compliment, and they were said—so far as I know—by men who do not make a practice of saying nice things as a matter of form. Furthermore, the compliment quoted was directed to the subject, and not the reporter.

I will take this opportunity to explain to those who were not present that I did not exhibit a hypnotised subject before the Society in order to convince anybody of the reality of such phenomena—nor because I thought any member would feel an interest in any thing so familiar as a mere exhibition of a man in the hypnotic trance. I had discovered in my private seances a subject who showed in a remarkably clear manner all the stages of hypnotism as set forth by Charcot—who in passing into *la grand hypnose* developed some rare phenomena with an important bearing upon certain issues, now in controversy between Charcot and Bernheim. I used this subject to illustrate these points of special interest. I was glad to be able to do this because

I believed that members of the Society might live for years and travel thousands of miles and never again have an opportunity of seeing a subject so satisfactory in all these respects. I have no reason to regret my action, because I have abundant assurance that my efforts were appreciated beyond all anticipations.

I am aware of the extravagances of which even medical devotees of hypnotism are guilty. I know that our knowledge of its laws is imperfect. But I am satisfied that it will play an important part in the development of the modern idea known as physiological psychology. This system of philosophy—originated and expounded by such men as Maudsley, Huxley, Darwin and Spencer—represents about the first step of real progress which has been made in the science of mind since the days of Aristotle. Considered in all its relations, all its results, and all its possibilities, it will stand as the crowning glory of the nineteenth century.

Lewis G. Pedigo, M. D.

Roanoke, Va., Sept. 21st, 1889.

Changes Proposed in the "Reports on Advances," etc., in the Medical Society of Virginia.

Mr. Editor: At the recent meeting of the Medical Society of Virginia I gave notice that I would, at the next Annual Meeting of the Society, move to amend the by-law which provides for the appointment of members to report on the advances in medicine, surgery, etc. For some time I have been convinced that our present system is an antiquated one and that one of the purposes of the Society—viz., the diffusion of knowledge, could be better secured by the adoption of some other plan.

Twenty years ago postoffices were few, railroads and fast mails were fewer, and medical journals were published as semi-annuals, quarterlies, and monthlies. Publishing houses were not so plentiful, enterprising or liberal. At that time advanced thought and practice was not so quickly

nor as extensively disseminated, and reports on the advances in the various departments of medicine, etc., were heard at society meetings with interest and profit. Such is not, I think, the case to-day, and many progressive societies, appreciating this fact, have done away with such annual reports, and in many of the societies in which the old form is still adhered to, the reporter violates the letter of his commission and limits his report to the advances on some one subject.

With weekly journals in the offices of all who try to keep up with the current medical literature of the day, it is almost impossible to present a report containing the advances during the past year that does not have in it matter that has been read and re-read time and again. An advanced idea or practice is no sooner conceived or proven than it is given to the reading public through one of the many medical journals, and if it is valuable, it is copied in scores of journals. The printer's ink is hardly dry in a new book before we are waited upon and importuned by the adroit agent to buy it, and he has hardly left us before we receive an announcement that a revised, enlarged, and in every way a better edition is ready for distribution. Reports on the advances must be made up of the advanced ideas and practices presented during the past year in the medical journals and new books. Much of this advanced practice is old, and even tried and abandoned by the Fall meeting of the Society, and that which is new is as well known to the audience as to the reader of the report.

And again, the original article, or an extract of it, written by a clever journalist, is generally more easily assimilated when read in one's quiet office than when written by one untrained to such work and read before the Society by one lacking in voice, confidence, and other necessary qualities to claim and fix the attention of his listeners.

Few writers have the powers of condensing sufficiently well-developed so as to enable them to take the literature on any branch of medicine presented during the year and condense it into a report of reasonable length, and we think he must be a close searcher, if he gleans facts which have

not already been dwelt upon time and again by more than one writer in the journalistic press.

With such convictions, we would respectfully urge a change in the form of our annual reports; and we are encouraged to advocate this change from the fact that we have talked with a number of the progressive members of the Society as regards the proposed change, and as far as our enquiry has gone it has received a unanimous endorsement.

The only possible objection to the change that now occurs to us is this: Members appointed to read reports on the advances are stimulated to work. We think, however, as much good will result to the reporters if they limit their efforts to, and enter fully into the discussion of one subject, while the profit or interest to the Society will be larger. Another minor objection is that young men are brought out and trained by being appointed reporters, but the end is as surely accomplished by requesting them to limit their remarks to one subject, and in addition they are trained in the expression of original thought.

What substitute shall we adopt for the plan now existing?

I know of no better than that now in vogue in many of the most active and progressive societies. The presiding officer or a committee appoints or requests one or more members to act as leaders in the discussion of as many subjects in the different fields of medicine, etc. The subjects can be selected by the members appointed or by those making the appointments. In making such appointments, of course due regard should be paid to a man's known ability to perform the task in the field assigned him; several subjects in the same field could be selected and some one competent to do it appointed to open the discussion on each, and if a member appointed is especially interested in any subject, he could easily have that subject substituted for the one assigned him. This plan would, we think, insure the presentation of original papers limited to some special subject which could be fully dealt with in a report of reasonable length, and we would not so often, out of consideration

for the feelings of the readers, have to move an extension of time to let him finish.

With a membership of over seven hundred the full time of the Society meeting ought to be occupied in hearing terse, crisp, original papers. As it is now, too much time is occupied in reading long and uninteresting reports on the advances, and there is a scramble to get in original papers. We know of members and visitors who could contribute much to the interest of the meetings, but who are unwilling to contend for an opportunity to appear before the Society.

Another point in connection with this subject should, we think, receive our attention. We often have it announced in our annual announcement that Dr. A. will read a paper on some special subject. Members interested in this subject and knowing it will come up before the Society, prepare themselves to take part in the discussion. If Dr. A. is absent or fails to prepare his paper, those present are not only deprived of the paper, but also what is often better than the paper, of the discussion. We think when a paper which has been announced is called for, a discussion of the subject of the paper should then be in order; whether or not the author or his paper is present, the discussion often gives us the kernel without the superfluous shell.

We respectfully ask the members of the Society to consider the changes we propose, and we would suggest that there are other directions in which reform may be beneficial. We do not expect our views to receive unqualified approval, but we will be satisfied if some one will suggest a plan better than that we propose, or better than that now in vogue.

Respectfully,

HUGH M. TAYLOR, M. D.

Richmond, Va., Sept. 20, 1889.

Ponca.

Dr. R. M. Hutchins, who was located in the Indian Territory, states: "I believe Ponca has a more decided *alterative* action upon the uterus and uterine mucous membranes than any known remedy. Under its internal administration I have seen long standing ulcerations heal, foul discharges cease, a spongy, inflamed and enlarged uterus reduced in size and become firm and healthy."

Original Translations.

From the French. By R. M. SLAUGHTER, M. D., Theological Seminary, Va.

The Diphtheric Poison.

Dr. Spronck (of Wtrecht) recently reported to the French Academy of Sciences some results of researches made at his laboratory upon the action of the diphtheritic poison, and especially upon the kidney. There occurred in the village of Horn (Holland) an epidemic of diphtheria which lasted during January, February and March, 1889. From patients attacked during this epidemic was taken the false membrane used in the experiments. In all cases examined, the bacillus of Klebs was found and isolated in pure cultures. These cultures were possessed of a powerful toxic action, and when placed in contact with abraded mucous membrane produced false membrane in which the bacillus multiplied. Inoculation or intra-venous injection of it caused death. The characteristic paralysis, beginning about three weeks after inoculation in pharynx, was observed in pigeons and rabbits. The bacillus remained localized in the false membrane. Inoculated under the skin, it multiplied only in a slight degree in the subcutaneous tissue, but never in the blood or internal organs.

If instead of injecting into a pigeon at one dose a sufficient quantity of the poison to cause death in a few days, this amount was given in a series of injections at intervals of 24 hours; rapid poisoning was not produced, but after some weeks appeared the typical paralysis which passed away in time.

Both subcutaneous and intra-venous injections caused in rabbits albuminuria and true nephritis. To provoke albuminuria in rabbits, the amount of poison given must be so regulated that the animal may survive several days. It shows itself in from 24 to 48 hours after subcutaneous injection and later after intra-venous injection. The urine which till then shows no alteration, becomes generally high colored and scanty, and contains a variable quantity of albumen, white and red blood corpuscles, epithelial cells, products of fatty degeneration and casts.

After death, the kidneys are generally found to be congested and enlarged and the cortical substance increased in volume. They present on section hæmorrhagic points and are deeply colored. Microscopic examination shows fatty

degeneration of the epithelium of the tubules. A large number of tubules are obstructed by casts. At the same time, a certain number of glomeruli are affected, their epithelial lining as well as that of the capsule and vascular tuft being changed and desquamating. And, moreover, there is often congestion or an hæmorrhoge from a number of glomeruli and an interstitial alteration more or less marked. This albuminuria appears then all the more interesting, as offering a new proof that the bacillus of Klebs is the true cause of diphtheria.—*La Tribune Méd.* Aug. 29, 1889.

Treatment of Diphtheria.

There can be no longer any reasonable doubt that diphtheria is an infectious disease of local origin, and consequently, antiseptic local treatment is of vast importance. We append some late formula for local antiseptic applications.

Dr. Gaucher (*La Tribune Med.*, Aug. 29, 1889) recommends the following formula:

℞ Camphor.....20 parts.
Castor oil.....15 "
Alcohol (90°).....10 "
Carbolic acid (crystals).....5 "
Tartaric acid.....1 " —Mix.

The castor oil dissolves in the alcohol and the mixture is perfectly clear. Glycerin, he says, is a bad vehicle. This mixture should be used as a local application every 2 or 3 hours. It is only slightly caustic and causes little pain.

Dr. Hutinel (*Le Practicien*, Aug. 5, 1889,) recommends one of the following:

℞ Acid carbolic.....5 parts.
Camphor.....20 "
Olive oil.....30 " Mix.

Or ℞ Acid.salicylic.....1 part.
Alcohol q. s. to dissolve.....
Glycerin.....40 parts.
Infusion of eucalyptus.....60 " Mix.

Applications should be made 6 times during the day and 3 times during the night.

He also favors keeping water boiling in two open vessels in the room. To each vessel of water should be added every 3 hours a tablespoonful of the following solution:

℞ Acid carbolic.....280 parts.
Acid salicylic.....56 "
Acid benzoic.....112 "
Alcohol (rectified).....460 " Mix.

For nasal diphtheria, he uses sprays of solution of boric acid and application of this ointment:

℞ Sulphur (sublimed)..... 4 parts.
Lard.....30 " Mix.

For glandular enlargement this ointment:

Ext. belladonna. .... 3 parts.
Iodide of potassium..... 1 "
Vaseline .....30 " Mix.

Treatment of Dysentery of Children.

Ipecac, says Dr. Veillard (*Jour. de Méd. de Paris*), is the specific remedy of the dysentery of children. The following is the preferable method of using it:

℞ Pulv. ipecac..... .....grs. xxv

Boil for 5 minutes in 3½ fluid ounces of water.

Filter and add:

Sydenham's laudanum.....gtt. ij–iv
Cinnamon water..... ℥ iij
Syrup of orange flowers .....℥ vj

Dose for a 3-year old child a desert spoonful each hour. If nausea is produced lengthen the interval between the doses.

To quiet tenesmus, use injections of laudanum, large injections of infusion of chamomile flowers, or of eucalyptus flowers; and to act on the rectal mucous membrane, astringent injections.—*Le Practicien*, Aug 26, 1889.

Proceedings of Societies, Boards, etc

MEDICAL SOCIETY OF VIRGINIA.

First Day—Night—Tuesday, September 3rd.

The Twentieth Annual Session of the Medical Society of Virginia convened in Roanoke, Va., 8 P. M. Tuesday, September 3d, 1889, the President, Dr. E. W. Row, of Orange, Va., in the chair. After prayer, and the *Address of Welcome* by Dr. A. Z. Koiner, Chairman of the Local Committee of Arrangements, Dr. Thomas J. Moore, of Richmond, Va., was introduced, and delivered the *Annual Address to the Public and Profession*, selecting as his subject, "Man and His Development." This Address was not medical, but rich in history, synthetic in philosophy, and exalting in suggestion as to what man may become.

Routine work, such as the Reports of the Secretary, of the Executive Committee, of the Publishing Committee, etc., consumed the remainder of the evening session.

SECOND DAY—MORNING—WEDNESDAY, SEPT. 4TH.

The meeting was called to order by the President at 10 A. M. After the reading of the minutes, the registration of those in attendance upon the session showed over 160, including some eight or ten Fraternal Delegates, Invited Guests, Non-Resident Honorary Fellows, etc.

As Invited Guest, Dr. John A. Wyeth, of New York city, was compelled to leave on an early train for the South, he was requested to present his paper at once. Accordingly, he read his paper on

The Status of Cocaine in Surgery.

After a note or two on the history of cocaine as a surgical anæsthetic, in which he accords to Dr. Karl Koller, now of New York city, but five years ago of Vienna, the credit due for its introduction for eye surgery, and to Dr. J. Leonard Corning, of New York city, the credit for its practical application to other surgical purposes than anæsthesia for eye surgery, he remarked first upon its dangers, due to idiosyncrasy, etc. Its dosage is uncertain, differing widely, not only in different individuals, but in the same individual at different times. He spoke from personal experience and observation. The general rule should be to begin with the minimum dose, gradually increasing it, always watching the pulse, face, respiration and pupil. In small doses, it increases the number of respirations, and is a cardiac stimulant; in large doses, it arrests the heart in diastole, and the action of the respiratory muscles. Cocaine is never applicable to children under ten or twelve years of age. In his several hundred applications in adults in all parts of the body, he has several times observed pallor of the face and fainting, but due most probably to the patients being overcome by the sight of blood, etc. In some, however, it was due to absorption of the drug. Exhilaration is not an uncommon symptom, and in rare cases it increases to boisterousness. In one instance convulsive movements occurred, opisthotonos being rather well marked. In another case, a convulsion occurred 14 hours after a gradual injection of thirty minims of a four per cent. solution of cocaine (gr. jss). In many cases, when not applied about the eye, dilatation of the pupil occurs, indicating absorption by the blood. For hypodermic purposes, he uses twenty grains of

cocaine and three grains of boracic acid, dissolved in an ounce of distilled water—approximately, a four per cent. solution. A stronger aseptic solution is equal parts of distilled water and saturated solution of salicylic acid. Always dissolve cocaine in water free from lime.

In operations upon the extremities, the circulation may be temporarily arrested. For example, in amputation of the last phalanx of the finger, first immerse the hand for half an hour in a 1:2000 solution of corrosive sublimate. It is best not to Esmarch the finger, but to constrict it with a piece of rubber tubing. *Direct* injections (in the line of incision) retard to a slight degree union and repair of wounds. Hence, employ the *indirect* method (injections about the nerves at the base of the finger) when possible, although this method requires a little longer time and a little more of the cocaine solution. Just before applying the rubber, insert the smallest size hypodermic needle through the skin on the lateral aspect of the dorsum of the digit, about an inch from and on the distal side of the ligature. Inject about two minims; push the needle a quarter inch farther, and inject two minims more, etc., until the needle-point rests just beneath the skin, on the plantar aspect of the finger, when the same quantity is injected. Thus one-half of the finger is injected, and the operation is immediately repeated on the other half—the entire operation not occupying more than 30 seconds. A smarting, burning pain is felt as the fluid enters. Tighten the tourniquet at once, thus holding the solution at a standstill for absorption, which may be hastened by massage over the injected area. Insensibility supervenes in about two minutes. Usually about 15 minims are sufficient, but 30 minims may be thus used safely.

The operation being finished, loosen the band *for only a minute*, which restores the circulation, and (under sublimate solution) the wounds bleed freely, thus giving escape to whatever of the solution the arterioles may have absorbed; but of course a certain amount is carried into the general circulation. Tighten the rubber again for about two or three minutes, and insert sutures and apply the dressing. Gradually accustom the general circulation to the cocaine by alternately loosening and tightening the tourniquet. The heart and nerve centres might be overwhelmed if the entire excess is suddenly let loose into the general circulation.

The advantages of the *direct* method are: Rapidity of

anæsthesia; the small quantity of cocaine used; escape of much of the solution through the wound of incision. This method is preferable for incising felons, removing diseased nails, foreign bodies, etc. Indeed, any procedure where the necessary anæsthesia can be obtained by not more than a drachm of a four per cent. solution may be safely done with this agent by the direct method.

In operations upon the trunk, the immediate absorption of the solution renders greater precaution necessary. For instance, if a fatty tumor is to be removed, insert the needle into the deeper layers of the skin (not subcutaneous fat) along the line of proposed incision, and inject half-minim or minim; advance the needle a quarter of an inch, and repeat the injection, and so on as far as the needle will reach from the original puncture. Repeat the injections, if necessary, for a length of three inches until anæsthesia is established. The anæsthesia is evident by the pallor of the overlying cuticule. Divide the skin through the middle of the anæsthetized line, and continue the dissection laterally until pain is experienced. Insensibility often spreads an inch or more on either side of this line. Inject a half minim or more at all sensitive points in the line of incision.

Since scars are to be avoided, cocaine is not so free from objections on the face and neck as elsewhere. In eye surgery, the uses of this agent are too well known to require remark. In the buccal cavity, it has a wider range of application. Tumors of a half inch to not more than an inch can be painlessly excised. Small epitheliomata or suspicious ulcers are painlessly removed from tongue, when 5 to 20 minims of a 4 per cent. solution are injected beneath and around their bases. He has twice dissected out ranulæ successfully. Complete cleft of the soft palate in the adult can be painlessly closed by applying the solution to the mucous surface with a brush. Cocaine is in every day use for the larynx, nose and nasopharynx.

For internal urethrotomy, regardless of location, he rarely employs general anæsthesia now. Disinfect the urethra with boracic acid solution (gr. x to ℥j); inject ℥j—ij of a 4 per cent. solution of cocaine with the ordinary P syringe. At the end of a minute or so, let all of the cocaine solution that will run out of the urethra run out. If the operation is to be in the membranous portion, pass the long curved tube of Otis into the part, and inject from 20 to 30 minims. For the introduction of the sound on the third day after urethrotomy, be careful not to over-distend the canal with

the preliminary cocaine injection; about a drachm of the solution is then as much as should be used. For bladder examinations cocaine is very useful.

Circumcision in adults no longer requires general narcosis. Constrict the penis near the pubes, pull forward the prepuce, and enter the hypodermic needle at the free border in the middle line on top, *between* the mucous and cutaneous layers. Then carry the point of the needle back as far as the proposed line of section, and force out one minim of the 4 per cent solution. Withdraw the needle half way, carry forward again to the right and left, and force out a minim for every quarter of an inch of the line of section. On account of the sensitiveness about the frenum, it is best to inject two or three minims here.

In Levis' operation for hydrocele, cocainize the point where the trochar is to enter. If the hydrocele is small, Volkman's operation may also be done with cocaine anæsthesia. In the open operation for varicocele. cocaine is not sufficient; nor is it sufficient for external urethrotomy, cystotomy, hernia, etc. But small hemorrhoids may be injected or cut away after cocaine injections. Cocaine is sufficient also for fissures and ulcers of the anus and rectum. It is also sufficient for a single and superficial anal and rectal fistulæ.

Honorary Fellow, Dr. Hunter McGuire, of Richmond, Va., said that he had listened to the paper with a great deal of interest and profit, but he did not think that Dr. Wyeth had dwelt sufficiently on the dangers of cocaine. Dr. McGuire has used this remarkable agent almost every day for the past five years; but he has come very near killing one or two patients with it—so uncertain is its paralysing effect in some cases, which cases cannot be foretold until the danger is recognized to be at hand. In one of his journals, he had read that Dr. Sims had injected a few minims of a 20 per cent. solution of cocaine muriate into the male urethra, and in twenty minutes his patient was dead. Dr. McGuire said that he had cocanized a great many children without observing the very serious effects referred to by Dr. Wyeth; in fact, they seem to stand cocaine as they do chloroform anæsthesia—very well. But there are objections to cocaine. Undoubtedly it interferes with the repair of wounds by the first intention.

Another thing: During the session of this Society two years ago, in Richmond, he heard a distinguished authority in such matters—then a resident of New York city—affirm

that a cocaine habit, in the sense in which the term habit is applied to the whiskey habit, the morphia habit, etc., could not be established. But he is certain he has seen a case or two of the *cocaine habit* in the list of patients who have come under his care.

Dr. Wyeth remarked, in reply, that he endorsed everything that Dr. McGuire had said. In fact, the dangers of the indiscriminate use of cocaine are very considerable. He did not mean to imply the idea in his paper that the danger of cocaine, when used with children, was in the drug itself; but in the imperfect manner in which it is generally administered to them, because of their struggling to resist its administration, and the peculiar sensation of loss of sensation in the part, which frightens them.

Medical Reforms, with Special Reference to the Profession of Virginia

Was the subject of the Address of the President, Dr. E. W. Row, of Orange, Va. He advocated the establishment of a State General Hospital, to be sustained by the State, just as are the asylums. But, he thought that matters of professional interest connected with the management of such institutions should be placed under the control or direction of the Medical Society of Virginia. In other words, he thought that the medical affairs of the State should be directed by the medical men of the Commonwealth, just as are the legal affairs, by the legal men, etc. The medical profession has shown its ability to manage such matters as belong to it, as evidenced by the excellent work done by the Medical Examining Board of Virginia—the creature of this Society. The insane hospitals and like institutions should be more directly under the supervision of this Society, so far as the medical affairs connected with them are concerned. It is a duty of this Society at this time to put itself to work to secure for the State Board of Health an annual appropriation from the State sufficient to pay all its necessary expenses—it appearing that the law establishing the Board some seventeen years ago is altogether satisfactory, with the exception that the law very foolishly concludes with some such proviso as: "provided the said board of health shall not be an expense upon the State."

The next order of business was the discussion of the selected subject,

Croupous Pneumonia.

The appointed Leader, Dr. B. L. Winston, of Hanover C. H., Va., stated that he would confine his remarks to uncom-

plicated cases of the disease. The *diagnosis* is not difficult, although sometimes the disease escapes detection unless resort is had to the physical signs. Pain is probably never present unless more or less pleurisy complicates the pneumonia. Rusty colored sputa though pathognomonic when seen, does not, by any means, occur in the majority of cases, according to his experience; and on this point he thinks the text books should be corrected.

The *causes* may be classed as either—specific, exciting, or predisposing. The view that pneumonia is due to a specific organism, does not meet with common approval. Dr. Winston thinks that pneumonia is not simply a local inflammation of lung, but that it is only an expression of a general disease; and that the pneumonia deserves no higher classification than the ulcers of typhoid fever. Croupous pneumonia is not produced by extension of inflammation, but, in such cases, lobular pneumonia is the result. It is not produced by inhaling irritating gases, nor by traumatism, nor by "cold," as are other inflammations of the air passages. It is a self-limited disease, and frequently occurs as an epidemic. The common asthmatic tendency cannot be due to the height of the fever, nor to cardiac weakness, nor to the amount of lung consolidated, (for the amount invaded is often very small.) It is at least certain that the cardiac failure in no way corresponds with the severity of the other symptoms. It seems to the speaker that the tendency to heart failure, which is the most alarming symptom in uncomplicated cases, is due to a morbific agent acting on the nerve centres. But the exact cause of croupous pneumonia is a subject for further investigation. The germ theory may or may not be true.

The *predisposing* causes are age (under 60); the male sex; the negro race; certain diseases as typhoid fever, winter and spring seasons, etc. The *exciting causes are*, in general, such things as tend to lower the vital powers, as exposure to inclement weather, insufficient clothing, neglecting the wearing of flannel during winter and spring, etc.

It is more common South than North, pneumonia being almost unknown in the frigid zone. During the winter and spring, almost every article of food has the stamp of age upon it; and it seems more probable that the character of food then taken, when the vital powers are at their lowest, contribute most largely to the development of the disease.

As to *treatment*, most every drug has been tried; yet the mortality among adults is second only to that from con-

sumption. Marayliona abstracts from five to ten ounces of blood on the fourth or fifth day, when the heart is on the eve of being overpowered by the pneumonic toxic matter. But Dr. Winston thinks stronger evidence needed to justify resort to such bleeding on such occasions, although there may be occasionally times when some venesection is useful. He also thinks large blisters relieve pain. Calomel has no place in the treatment of croupous pneumonia. Aconite in the commencement, and quinine, given early, as an absorptive, may be useful. But he has gotten the best results when he has given the least medicine. Hot poultices, opium to relieve pain, stimulants when needed, food, hygienic measures, and, above all, skillful nursing will be all that can be done in uncomplicated cases.

Dr. H. C. Beckett, of Scottsburg, Va., read a paper on the subject. The specific cause of croupous pneumonia is undetermined. No age has either a notable proclivity to the disease, nor is any age exempt. It rarely occurs in children under five years of age. It is perhaps more frequent between the ages of 20 and 40, and after 60. In adult life, it occurs in males three times as often as in females. In females, it occurs most frequently at the catamenial periods. Outdoor laborers are more liable than indoor workers. Habitual alcoholic drinkers, malarial subjects convalescents from severe acute diseases, etc., are most liable to the disease. Erysipelas, measles, diphtheria, small-pox, etc., are predisposing causes. Traumatism, especially in the aged, a previous attack of pneumonia, are also predisposing causes. It occurs more frequently in the Middle and Southern States than in the Northern. It often prevails as an epidemic in the mountainous regions of the South. The first five months of the year are its season. Thus it is seen that all things predispose to pneumonia that depress vital action. Dr. Shaw, of St. Louis, believes that perturbations of the vasomotor centre in the medulla causes pneumonia by impressions conveyed through nerves connecting this centre with the stomach. As to *treatment, use* stimulants or depressants as required. If both lungs are involved, so as to leave little breathing surface, bleed. In such cases, venesection affords immediate and remarkable relief. Large hot poultices over the lungs reduce blood pressure, while the heat stimulates the heart. Aconite is preferable to veratrum. But he prefers antifebrine as the antipyretic, to be followed by quinia, which latter he considers the sheet anchor in pneumonia. He usually prescribes five grains ev-

ery four hours until the fever breaks. In the second and third stages, he generally combines ammonia carbonate and digitalis. The early exhibition of a large dose of calomel is useful. Opium is useful to allay pain and restlessness. Expectorants have no place in the treatment of pneumonia. Blisters at the beginning of the third stage hasten resolution. Alcohol is essential as a food and to sustain the heart. Many believe that the disease is contagious, and that four days is the period of incubation.

Dr. Lewis G. Pedigo, of Roanoke, Va., read a paper on *Sedative Doses of Calomel in Acute Croupous Pneumonia.*

In the earlier part of this paper he explained that his title was meant to refer to doses of 30 grains and upwards. He gave a history of the use of this treatment in various acute diseases by a few members of the profession for years. He explained in detail the method of administering the drug in this treatment, reviewed the condition of the secretions and the various indications of treatment in pneumonia; gave a systematic and detailed account of the numerous and apparently diverse effects of the large doses of calomel, classified these effects and showed how they were all dependent on two general principles, viz.: stimulation of the secretious and sedative influence on the nerves. He argued the adaptability of these effects to the chief indications in pneumonia. The entire paper was based upon clinical experience and one case was briefly reviewed to illustrate the treatment advocated. The important effects claimed were promotion of salivary, gastric, hepatic and intestinal secretion and unloading of the portal circulation (followed by improved digestion and assimilation), increased and improved action of the kidneys and skin, lessening of the bronchial and pulmonary secretion, relief of the cough, lowering of the temperature and promotion of sleep.

Dr. Bedford Brown, of Alexandria, Va., gave a

Resumé of His Personal Experience of Forty-One Years in the Treatment of Croupous Pneumonia.

During this period of time he has seen four or five different methods of treatment adopted and practised, and finally discarded. First, as to the depletory plan: At first it was used in every case; then in only certain cases; and finally it was entirely discarded. Then came the mercurial plan, in which calomel, in small doses, with Dover's powder, with mercurial inunction, were used until ptyalism occurred. The great majority of cases recovered under this treatment. Then followed the sedative treatment, consisting of the use

of veratrum viride, aconite, and ultimately digitalis. Then sedative treatment of Norwood gave birth to all of our subsequent ideas of sedation. This was an advance on the pure depletory treatment, and resulted in real good. The again came the stimulant treatment. This was a still further advance, and has brought more and better fruits than any other single treatment, while this also may be modified and combined with elements of other treatments with advantage. Dr. Brown has not derived benefit from the pure antipyretic treatment. He has, in former years, seen much of the epidemic forms of typhoid pneumonia, with a tendency to collapse, which was constant and great. In this form he has used large quantities of whiskey—a quart per diem—carbonate of ammonia, tincture of nux vomica, and chloroform internally. In this form he has also used, in connection with stimulants, solution of the acetate of ammonia, tincture of nux vomica, tincture of chloride of iron, with benefit. Dr. Brown does not think, from this long experience, that adherence to any one single routine treatment exclusively will give as good results as the mixed treatment, combining some of the good features of all; but never forget the value of stimulants and nourishment. He has seen cases of pneumonia, with slight fever, slow pulse, moderately excited respiration, etc., recover without medication.

Dr. J. H. Neff, of Harrisonburg, Va., said he believed that acute croupous or lobar pneumonia was a general disease due to a specific poison. This theory has been ably presented for some years, and much can be said for and against it; but each year's experience has strengthened his opinion in its favor. The future organic chemists and bacteriologists must prove whether it be a chemical poison or an organized germ. Believing that it is a general disease, due to a specific cause, for which there is no specific medicine capable of aborting its course, the treatment must be determined by the nature of the disease in each individual constitution. He has never bled, nor given a dose of aconite or veratrum viride, nor used mercury except to give occasionally an ordinary dose of calomel in the beginning. Many cases will recover without medicine, if properly nursed; this was observed and recorded more than twenty-five years ago. He has seen cases of double pneumonia, without scarcely a bad symptom. The area of lung involved does not always determine the gravity of the disease. He gives opium or morphia to allay pain, lessen shock, produce

sleep, etc. Quinine he regards as the safest antipyretic; besides it has special virtues in lessening the gravity of all local inflammations. He has never seen it produce collapse, and hence prefers it to the other arterial sedatives. If not needed as an antipyretic, it may be of benefit in smaller tonic doses. He gives antipyrin to children, and if he has any routine treatment, it is to envelop their chests with an oil-silk jacket, lined with soft, fine flannel. Digitalis, alcohol, ammonia and chloral have all in their place been of much service.

Fraternal Delegate, Dr. J. G. Wiltshire, of Baltimore, Md., said that studying the subject of cropous pneumonia after Lepine, Sevestre, Charcot, etc., one must accept the theory that it finds its origin in a specific pathogenetic germ; yet it cannot be denied that there are certain meteorological conditions that stand in a strong causative relation to its production—it occurring more frequently in a low temperature—one acting as a specific, the other as an exciting cause. We are constantly exposed to the invasion of the pneumo-cocci; but for the want of the necessary conditions to render the mucous membrane of the lung a suitable soil for their culture and growth, it is able to resist them for a time, only to yield when such exciting causes as cold and traumatism supplement the specific influence of the germ. Apropos of the theory that the pneumo-cocci have other habitats than the lungs, he called attention to the study of Sevestre of an epidemic of broncho-pneumonia, complicating cholera infantum and other enteric troubles, in which he found the microbes of pneumonia in the intestinal tract, whence they were carried to the lung by the lymph channels. The treatment of croupous pneumonia calls for heart sedatives, heat and moisture in the form of hot cloths. These, if used in the first stage, may abort the disease: should it, however, pass into the stage of red hepatization, a supporting and stimulating plan should take the place of the sedative one. Watch the temperature and heart as closely as the powers of the patient. Alcohol is important in the second and third stages. Quinine and antipyrin, when used together, are the best antipyretics. They not only reduce the temperature, but preserve the power of the heart. Carbonate of ammonia does the two-fold work of aiding in liquefying and expectorating the fibrinous deposit and keeping the heart's force up.

Dr. Henry M. Patterson, of Staunton, Va., remarked that if this is a specific disease, the treatment given has certainly

been at variance with this idea. He does not believe that it is simply hyperæmia of the lung. The gravity of the attack depends on the amount of exudation. How to remove the engorgement is the question. At this period is the time to abort the disease, if possible. He may be ranked as behind the times, but his success with the lancet now is just as good as it was when he began practice in 1851; and that success is just as good as is that by other plans of treatment now in vogue. He gives alcohol in the second stage in almost every case, both for its food and stimulant qualities. He has had some remarkably satisfactory results from ergot.

Dr. Henry V. Gray, of Roanoke, Va., said that the important question is, What produces the great depression of the system in cases of croupous pneumonia? If due to exudation in the alveoli, that condition needs prompt attention. (The Reporter was unable to hear Dr. Gray's further remarks.)

During the AFTERNOON SESSION the election of officers, etc., resulted as follows: *President*, Dr. Oscar Wiley, of Salem, Va.; *Vice-Presidents*, Drs. J. M. Estill, of Tazewell C. H., Alfred C. Palmer, of Norfolk, and Caspar C. Henckel, of New Market; *Recording Secretary*, Dr. Landon B. Edwards, of Richmond; *Corresponding Secretary*, Dr. J. F. Winn, of Richmond; *Treasurer*, Dr. Richard T. Styll, of Hollins, Va. Dr. John S. Apperson, of Glade Spring, was elected to deliver the *Address to the Public and Profession* during the Annual Session of 1890. *The Treatment of the Summer Diarrhœa of Children* was the subject chosen for General Discussion during the session of 1890, and Dr. C. T. Lewis, of Clifton Forge, was chosen Leader in the Discussion.

Drs. R. F. Young, of Love's Mill, and P. B. Green, of Wytheville, were chosen members of the Medical Examining Board of Virginia to fill vacancies occasioned by the resignations of Drs. Preston and Dickinson.

Rockbridge Alum Springs, Va., was selected as the place of the annual meeting of 1890, some time between the 25th of August and the 5th of September, 1890, as the Executive Committee may determine.

SECOND DAY—NIGHT—SEPTEMBER 4TH.

According to a special order made this morning, Honorary Fellow, Dr. George Tucker Harrison, of New York, N. Y., presented a memoir of the late Dr. James L. Cabell, re-

cently Professor of Physiology and Surgery in the University of Virginia, and an ex-President and an Honorary Fellow of this Society. The memoir was ordered to be incorporated in the Report of the Necrological Committee.

The Reports of Sections on the various departments of medicine, etc., being next in order, under call for those on "Anatomy and Physiology," A paper was read by Dr. E. T. Brady, of the Southwestern Lunatic Asylum at Marion, Va., entitled,

"Mental Action--Material Action."

The Doctor stated that he would treat the title as a fact, considering it established by the following three propositions:

1st. That mental impressions involuntarily originate physical action, and that material impressions give rise to this involuntary mental action.

2nd. That loss of cerebral substance is followed by loss of physical or expressional function, and that disuse of mental function is followed by a corresponding atrophy of cerebral substance.

3rd. That abnormalities of organic function, have, as their sequence, abnormal ideation.

He devoted his paper to the support of these propositions. In support of the first proposition, he cited the phenomena of sweating, nausea, and vomiting from fright; the quickened circulation and blushing of the lover or of wounded modesty; the flow of tears and gestures of grief, joy, etc.; changes in expression and movement, in a dreaming sleeper; consciousness of the presence of a limb, as evidenced by sensations referred to a limb after amputation, claiming that such sensations are not imaginary, but the outward projection of a previously stored impression; also claiming that all reflex action is evidence of material impression as the cause of mental action.

In support of the second proposition, he presented the records, clinical and post-mortem, of several cases, and cited advances in cerebral localization and microscopic pathology. He incidentally recommended the adoption of vivisectional experimentation as the means of executing the death penalty upon criminals.

In support of the third proposition, he referred to what had been advanced under the other headings, calling attention to the gradual and simultaneous decline of the cerebral and mental powers in diseases of the brain and cord.

The Report on Advances in Chemistry, Pharmacy, Materia Medica and Therapeutics

Was presented by the Reporter, Dr. Wm. F. Cooper, of Woodville, Va.

During the past year, antipyretics, antiseptics, and hypnotic and anodyne remedies have claimed most attention. *Phenacetine* from the phenol group, is a white, glossy, crystalline, tasteless powder, slightly soluble in water, and a little more so in glycerine, and freely so in alcohol. Since therapeutic attention was called to Phenacetine-Bayer in 1887, it has been proven to be a most reliable antipyretic and antineuralgic and appears to be non-toxic. The phenacetines lower temperature, in fever. Seven and a half grains—the usual dose—lowers the temperature from 1.8° to 3.6° F., lasting for hours: It is best given in powder or soluble pills. With regard to *Sulphonal-Bayer*, Kase arrived at the following conclusions. It promptly produces natural sleep, lasting several hours, without unfavorable effect upon the heart, respiration, temperature, or digestion. It does not create an unconquerable desire for repeated doses, and it is not necessary to increase the dose of from 15 to 45 grains. It induces sleep in from half hour to two hours. It is best given in wafers, or in tablets which may be dissolved in soup or tea. *Amylene-Hydrate*, recently introduced by Von Mering, is an isomer of amylic alcohol, and physiologically occupies a place between chloral and paraldehyde. It is a clear, colorless, slightly oily liquid, boiling at 102.5° C.; sp. gr. 0.81. Its odor resembles paraldehyde with a faint suggestion of camphor. It imparts a sense of warmth in the mouth, and has a hot aromatic taste. It is freely soluble in alcohol, but requires eight parts of water. It is given with extract of liquorice or in red wine and sugar. In 50 to 75 grain doses, it causes neither nausea, headache, digestive disturbances nor unpleasant after-effects. More frequently than other hypnotics, it induces refreshing sleep. *Methylal* is a new hypnotic, with sweet taste, ethereal odor, soluble in water, is rapidly eliminated and leaves no ill effects. Dose 3 to 5 grammes. *Salufer* (neutral sodium silico-fluoride), a white inodorous compound, slightly soluble in water (gr. iiss to ℥j), is a powerful unirritating surgical antiseptic. For ordinary purposes, a grain dissolved in an ounce of water is strong enough for syringing out cavities, etc. It corrodes steel instruments, but sponges are not affected by it. *Guaiacol*, an ether derived from beech-wood creosote, is a colorless liquid, with an aromatic smell, slightly soluble

in water, but readily so in alcohol and fixed oils. It is used in consumption in doses of from half to one minim several times daily. The solution should be kept in a colored bottle. Inhalations are also beneficial.

Adjourned until 10 A. M. to-morrow.

THIRD DAY—MORNING—SEPTEMBER 5TH.

After the routine work incident to opening was done, a resolution was adopted referring all matters of ethics or of a judiciary character to a Judiciary Committee of seven Fellows.

A resolution was also adopted most heartily sustaining the Medical Examining Board of Virginia in the discharge of its duties, as set forth in the laws of the Commonwealth relating to the Board.

Call for *Reports on Advances* being continued, Dr. R. S. Martin stated the Report on "*Advances in Obstetrics and Diseases of Women and Children*" had been subdivided.

The Report on the Advances in Diseases of Women,

Was made by R. S. Martin, M. D., of Stuart, Va.

Massage in Gynæcology is practiced according to the method of Brandt by Dr. Boldt, of New York, with great success in the following diseases:

(1.) Chronic and subacute para- and perimetritis. (2.) All non acute inflammatory conditions of uterus. (3.) Chronic and subacute oöphoritis. (4.) Catarrhal salpingitis. (5.) All displacements of uterus with or without adhesions unless dilated tubes are present. (6.) Rectocele and cystocele. (7.) Uterine hæmorrhages not dependent on neoplasms. (8.) Incontinence of urine dependent on relaxation of the vesical sphincter. (9.) Hematocele. (10.) Floating kidney. (11.) Prolapsus recti

According to same authority, it is contra-indicated in (1.) In all acute inflammatory processes. (2.) Dilated tubes. (3.) All conditions where suppuration is suspected.

Treatment not used on patients of very fat abdominal walls. The seances vary from three minutes to three quarters of an hour.

Sterility.—The Reporter presented an ingenious little instrument introduced by Dr. Outerbridge, called Outerbridge's dilator, which acts as a drainage tube. He claims special usefulness for it in sterility dependent on stenosis of cervical canal, into which this instrument is introduced and allowed to remain. He also claims that it is of value in sterility dependent on lateral and retro-flexions. Time for

introduction is five or six days before menstruation. Full description of this little instrument may be found in *Medical Record* of April 20th.

Electricity in Gynæcology is praised by some, and condemned by others. In the light of all reports of its use, it must hold a high place as a therapeutic agent in the treatment of carefully selected cases which fall into the hands of the gynæcologist. Engleman uses galvanism in inflammatory products which admit of restitution. Indurations, inflammatory deposits, the results of interstitial inflammation, contain neoplasms which are soon removed in many cases by persistent use of the constant current. Davis uses the Faradic current in sub-involution of the uterus, in many cases of retroversion, and in many so-called pelvic inflammations; in amenorrhœa due to atrophy of the uterus, and in menorrhagia due to relaxation of the muscles. Heywood Smith, Busford, Holland, Galli Thornton and Baker regard it as an important remedy in fibroids of the uterus when used after Apostoli's method, but they specially call attention to the dangers from sepsis, etc., which may follow the treatment. Mundé and Wells say the treatment of fibroids by electrolysis is uncertain and disappointing.

Carcinoma Uteri.—Brown uses the curette freely, and applies a saturated solution of chloride of zinc on tampon. Mundé uses a weak solution of ferric sesque-chloride. Schraum injects half to one grain of sublimate into the diseased mass two or three times a week. Under this treatment fetor and purulent discharges cease and hemorrhage is less frequent; the feeble absorptive power of the degenerated tissue offers immunity from mercurial poisoning. The following is an antiseptic and sedative suppository extensively used in Paris:

℞. Iodoformi..... .. ..grs. xv
Camphoræ..... .....grs. iv
Ext. belladonnæ.....grs. j
Ol. theobroma .....q. s.

M. Fit.—sup. No. 1.

Place in vagina at night.

Operative treatment was considered, and that operation advised which can most radically remove diseased tissue with least possible danger to life. High amputation of cervix would be recognized if the disease had not passed beyond the internal os. Hysterectomy was advised in cases where the disease is recognized before it has extended beyond the uterus.

Fibroids of Uterus were considered from medical and operative standpoints. Dr. Bedford Brown's medical treatment was spoken of. The operative treatment consists in scraping away hypertrophied mucosa, as advised by Coe. Vaginal hysterectomy has been successfully performed. Abdominal hysterectomy was performed 43 times in 1888 with 9 deaths.

Uterine Displacements.—Doleris and Martin's anteversions and flexions are only in rare instances congenital—they are the results of previous parametritis—not produced mechanically. Majority of symptoms depends on appearances of irritation of uterine mucosa. Doleris recommends dilatation with carefully asepticized laminaria tents to soften tissue and render intra-uterine medication more easy and thorough. Noble gives preliminary course of hot douches and glycerine tampons, then straightens uterus bimanually and holds in place by carefully fitted pessary or inter-uterine stem. Croom believes dilatation with bougie and persistent use of hot water will usually effect a cure. Goddell advocates thorough dilatation with steel branched dilator when dysmennorrhea is a permanent symptom. Wylie condemns the use of pessaries and dilates rapidly under thorough antisepsis.

Alexander's Operation for shortening round ligament has gained favor in America, England and France. In Germany there seems to be a great deal of theoretical opposition to its performance. Mundé reports 23 cases with excellent results. Kellogg reports 65 successes out of 69 cases. Edward Brown, Lee and Strang report good results from the operations. Schucking has devised and practiced in eighteen successful cases *vaginal suture* of the uterus for the radical cure of retroflexed or prolapsed uterus. Hysterorrhaphy finds great favor among the Germans who are prejudiced against Alexander's operation.

Lacerated Cervix.—Dr. Martin, the Reporter, operated for lacerated cervix with success May 3rd, 1886, and July 10th, 1889, delivered patient of twins weighing 8 pounds each and had no repetition of the laceration, the cervix dilating as in first labor. Herrick does not use sutures, but spans the lips and holds them in relation by an elastic band shaped like the cervix, large enough to cover the whole os and neck, with a small hole for secretions to pass. This is slipped over the cervix while the freshened edges are held in apposition by the tenaculum. Sharp curette is recommended by Engleman in cases which have resisted other treatment and cause not known.

Insanity a Sequel of Gynæcological Operations.—Dr. T.

Gaillard Thomas does not claim that operations performed for diseases peculiar to women are especially liable to such sequel, but mentions six very significant cases occurring in his practice—in none of which were the kidneys at fault nor could they be charged to iodoform poisoning.

Report on Advances in Obstetrics.

The Reporter, Dr. Charles W. Pritchett, of Keeling, Va., first spoke of *Vomiting of Pregnancy.* Hewitt analyzes fifty selected cases, and contends that these cases confirm his opinions that the vomiting is in most all cases associated with and dependent on uterine displacement and thickening or induration of the cervix. Gill Wylie attributes it largely to induration of the cervix. Jaggard ascribes it to endometritis gravidarum. Treatment.—Gunther, of Montreux, advises galvanism. Green reports cases cured by chloride of sodium. Collins and William Duncan report cases cured by the application of a ten-per-cent. solution of cocaine to the vagina and cervix. Rose recommends rectal injection of carbonic acid.

Anæsthetics.—Recent writers accord antipyrin a very high place in the first stage of labor—relieving pains and fatigue while the uterine contractions are not interfered with. Chloroform holds its own in the second stage of labor. Budin advises chloroform only to dull pain and not to complete anæsthesia, unless to perform an operation more severe than the application of the forceps. Swieicki, of Posen, has used a mixture of nitrous oxide and oxygen in the proportion of four to one. Winckel regards the mixture as harmless and especially useful in cases of elderly primipara. Hypnotism is a failure as an obstetric anæsthetic.

Antiseptics.—The comparative results in hospitals in which antiseptics are used and of those in which they are not, are sufficient to show their great value in reducing the mortality of the lying-in chamber. Corrosive sublimate in weak solutions and in careful hands is still the queen of antiseptics and germicides.

Eclampsia.—There is yet a considerable discord as to the cause and treatment of puerperal convulsions. Santos believes that the albuminuria is the result of reflex irritation of the sympathetic and renal nerves, by the enlargement, and later on, the contraction and retraction of the uterus. Lusk says albuminuria is caused by renal insufficiency and is not the cause of the convulsions. Pajot

denies the dependence of eclampsia on albuminuria, but attributes it to a reflex cause.

Mastitis, according to Richardson, is the result of septic infection, and he urges that the child's mouth be kept perfectly clean and the nipple well washed with antiseptics. Monti advises that the fissures of the nipple be painted with a solution of gutta percha in chloroform.

Puerperal Septicæmia.—It is disputed whether this disease is dependent on one or more organisms. Widal claims that there are at least two, and that there is no characteristic difference between the germs of puerperal septicæmia and erysipelas. Gusserow denies their identity and insists that erysipelas cannot cause puerperal septicæmia. Doyen says they are one and the same. Others assert that puerperal septicæmia is of an erysipelatous nature and the fever typical of erysipelas.

Report on Advances in Diseases of Children.

Dr. A. S. Priddy, of Keysville, Va., had not found any material advance except in diseases of the alimentary canal. The researches of Holt, Escherich and others with reference to *intestinal bacteria* were summarized with the deductions that three factors must be kept in mind in studying the effects of micro-organisms upon the human system: The nature of the organism; the dose and numbers in which they enter; and the susceptibility of the patient. The two varieties of bacteria which have been isolated and studied in the intestines of young children are the bacterium lactis ærogenes (found in the upper portion of the small intestine) and the bacterium coli commune. The first decomposes milk sugar, with the development of lactic or acetic acid to which the acidity of the intestine is due. After a full review of the subjects involved, the lessons are drawn that the infant must not be overfed, and that the milk (in bottle-fed cases) should be sterilizsd and the vessels themselves that hold the milk should also be sterilized. *Milk was first sterilized for food* in Munich in 1886. Dr. Caille, of New York, introduced sterilized milk as an artificial food into this country in 1888, and the results have been favorably received. It remains sweet for six weeks, while boiled milk can be kept only four or five days, even on ice. *Stomach washing* for gastro-intestinal disease, first used in Prague in 1880, was satisfactorily introduced by Seibert in New York in 1888, especially serviceable in dyspeptic disorders attended with regurgitation of food in cholera infantum, etc. Pass a long, soft, velvet-eyed rubber catheter attached

to a fountain syringe through the pharynx into the stomach; pour in a cup full of warm water while the child is in the upright position. Then tilt the child forward and the water returns through the catheter. For *intestinal irrigation* pass a Nélaton soft rubber catheter (with a hole in the end instead of at the side) some eight or ten inches into the bowel. Through this catheter, attached to a fountain syringe, pass a quart or two of warm water containing a drachm of sodium salicylate to the pint of water. Though the treatment is not new, it is only in the past two years that it has become popular in this country—chiefly through the reports of Dr. Booker, of Dr. H. P. Wilson's Sanitarium, of Baltimore. It is useful in dysentery, gastro-enteric catarrh, acute and chronic follicular enteritis, etc. Dr. Priddy had used the treatment satisfactorily in a number of cases of gastro-enteric catarrh, dysentery, etc., relieving the nausea, vomiting, tenesmus, etc., and curing his patients.

Honorary Fellow, Dr. George Tucker Harrison, of New York, N. Y., made a

Further Contribution to the Study of the Etiology and Prophylaxis of Puerperal Septic Infection.

The doctrine of auto-infection which has recently been brought into great prominence, and the industrious researches of the bacteriologists, with the practical deductions from them, have divided obstetricians into two parties diametrically opposed to each other. The one side attaches all importance to the disinfection of the obstetrician (Mermann's subjective infection). The other regards it as a matter of necessity to subject the parturient woman, in a greater or less degree, to antiseptic measures (objective antisepsis). The writer took the ground of those who advocate the paramount importance of *subjective antisepsis* in the paper read before this Society in 1885, and has had no reason to change this ground. Of course this position does not exclude the thorough cleansing and disinfection of the external genitals. The views of Kaltrubach were quoted, who insists upon it that an obstetrician, even with clean hands, can induce infectious forms of disease. He believes that as the surgeon disinfects his field of operation, so must the obstetrician disinfect the parturient canal as well as the vicinity. Winter (*Zeitschrift f. Gyn, etc.,*) as the result of bacterial investigation draws the inference that it is necessary to disinfect the cervix and vagina to avoid anto-infection. Steffeck and Donderlein arrive at the same conclusion. The writer believes that if the demands made by the bacteriolo-

gists should be generally acceeded to, and it should become an universally accepted rule of practice that the cervix and vagina of every parturient woman should be subjected to thorough and energetic disinfection, an immense amount of injury would be inflicted. These disinfection procedures deprive the vagina of its physiological mucus and renders it more vulnerable. It becomes more liable to the attack of infective germs. Moreover, labor is mechanically retarded when the vagina lacks its normal mucus. Nor must it be left out of mind that disinfection of the vagina and cervix is a painful manipulation. Probably the most serious objection which can be urged against the auto-infection doctrine is that it diminishes the personal responsibility of the obstetrician and that wholesome dread of infection disappears which every one should have who examines a parturient woman. The distinction was made between *septic infection* and putrid intoxication. Cases of so-called auto-infection are really cases of ptomaine intoxication. The mecro-organisms of *septic infection* are *streptococci.* According to Bumm, the streptococci of erysipelas and phlegmonous inflammation are identical. Bumm's careful and exact bacteriological studies lend no countenance to the doctrine of auto-infection. Leopold's clinical experience is very striking. Of 510 women treated without vaginal douches only nine had slight febrile pneumonia. When cervix and vagina were disinfected there was a marked rise in morbidity. The doctrine of auto-infection is a retrograde movement and tends to imperil our present attainments in the prophylaxis of septic infection.

Dr. I. S. Stone, of Lincoln, read a paper giving an account of

Some Geneclogical Work of the Past Year.

The author stated that his cases were treated in his private Sanatorium, where they could have good surroundings, nursing, etc. Four cases where abdominal section for cystic tumors of peritoneum with cancer of transverse colon. Salpingitis, chronic peritonitis following salpingitis, and one Battey's operation were respectively reported. The specimens shown (three in number) were characteristic of the disease in question. Other cases of lacerated cervix and perineum were alluded to briefly, but not separately reported. The author still advocates Emmet's operation for lacerated cervix, but says he does not so frequently perform it as before. One case of modified hysterorrhaphy was

mentioned, in which Alexander's operation was done on the left side and a partial hysterorrhaphy on the other. It was ascertained that many minor disorders, not surgical, were to be successfully treated by massage, electricity and overfeeding, known as the Weir-Mitchell method. The author has had several years of experience in treating these cases, and justly claims that a very large per centum of cases come under this heading. Electricity was not spoken of at length, but enough was said to show some skepticism in regard to its value in all save in nerve complications.

Dr. John W. Scott, of Gordonsville, Va., was the Reporter on

Practice of Medicine.

After reviewing much of the germ theory as causative of a number of diseases, he concludes that we must look to local sanitary improvements rather than to quarantine alone for the *prevention of epidemics*—such as Asiatic cholera, yellow fever, etc. Gibier maintains that the bacillus of yellow fever closely resembles that of cholera. During the year ending May 1, 1889, Pasteur treated 1,673 persons bitten presumably by rabid dogs, and lost only three by *hydrophobia* after the conclusion of the treatment, six during the treatment, and four developed the disease a fortnight after leaving this institution. The *microbe of typhoid fever* is the bacillus of Eberth and Gaffky. It is of tenacious vitality and may live for months in decomposing fæcal matter, increasing in numbers at a temperature of 62.5° Far. Dr. Kalb and Bartlett claim (*Brit. Med. Jour.*, Jan, 5, 1889), what is next to an abortive treatment of typhoid fever by mercurial inunction. This treatment must be commenced before the ninth or tenth day. Cold baths are again being advocated—Ehrlich's diagnostic sign of enteric fever—reaction in the urine with one of the aniline derivatives—has been verified by Dr. Taylor. (*Lancet*, May 4, 1889). *Tuberculosis* is a specific infectious disease, the constitutional manifestations of which are secondary to the bacilli, and due to toxic influences evolved during their increase of growth and number. The number of bacilli in the sputa bears no relation to the progress of the disease. The *dry* sputa is chiefly concerned in the propagation of the disease. The disease can be transmitted only through the medium of Koch's bacillus. It is not in the ordinary sense hereditary. The presence of the bacillus in the sputa is of positive value, but not of negative value in diagnosis. A rational prophylaxis is practicable and we must still look more to prevention than to

the cure of tuberculosis, as no non-injurious antiseptic has yet been brought forth successfully. *The infectiousness of scarlet fever* suddenly decreases about the sixth day, and increases again about the twelfth, reaching its maximum by the sixteenth. The *telluric origin of tetanus* is gaining advocates. The disease may be produced by inoculation with earth which has recently been in contact with organic matter. The *treatment of locomotor ataxia by suspension* is approved, but with the injunction to be cautious in watching the effect on the patient during the operation of suspension itself. No case of *Potts' paralysis* ought to be regarded as desperate until after failure of suspension. *Well's disease* is due to septic poisoning, and hence it is proposed to call it *septic or infectious icterus.* Dr. Scott's observations show that *treatment of whooping cough by the inhalations of the oil of eucalyptus* is beneficial in shortening the length, and in ameliorating the severity of the paroxysms and in prolonging the intervals between the spells. His method was to pour from one to two drachms of the oil on sponges and suspend several of them during the day from convenient places in the room; at night from the head of the bed so as to let the oil be constantly inhaled. A number of *abuses of hygienic rules* were mentioned, in the hope of getting practitioners to properly instruct their patients with regard to them,—such as the common errors in our schools, the aversion of wives to becoming mothers, etc.

Dr. A. Jacobi, of New York, N. Y., who had been invited to be in attendance, presented a paper through the Secretary on

Enteralgia and Chronic Peritonitis.

He defined enteralgia as always meaning an excessive irritation of a branch or branches of the sympathetic nerve. Its cause must be sought either in the nerve or in a change of either the intestinal tissues or its contents. The nerve may be affected directly by a hysterical and hypochondriac condition, by malaria, gout, poisons (as lead); or the pain may be the peripherous result of spinal disease, or reflected effect of an irritating affection of the liver, or genito-urinary organs, or skin. Indeed, sudden refrigeration of the surface (cold) is a frequent cause. The anatomical changes in enteralgia may be a simple congestion, or a nutritive disorder, and inflammation with its results. Some are easily affected by certain articles of food—particularly acid ones; by certain drastics, such as senna; by hard scybalæ—by direct pressure or locking up the gases; by fermenting foods,

etc. The attacks are indefinite in length and in the suddenness of coming and going. The temperature is normal or subnormal—rarely elevated; pulse irregular; skin cold and clammy; sometimes dysuria, nausea and vomiting, constipation or diarrhœa. The tumidity of the abdomen is apt to change its place under inspection or on palpitation. With spastic rise of the testicles there may be priapism and seminal discharges.

A cause of enteralgia, quite common, though apt to be overlooked, is *chronic peritonitis*. Primary peritonitis is rare and then mostly traumatic. Most cases are of secondary nature, with very numerous causes. New formations in the abdominal cavity—such as adhesions, swelled pelvic glands, etc.,—are often found with secondary peritonitis. Floating kidney is liable to light up chronic peritonitis and thus become fixed in a dislocated position after having been floating. Affections of the vertebral column and adjoining organs produce peritonitis; so do abscesses of the psoas and iliac muscles, of the socket of the hip joint, etc. Catarrhal inflammatory diseases of the female sexual organs are most frequent causes. Cohabitation is sometimes, and the puerperal state is very often the cause of persistent peritonitis. A biliary calculus by its pressure may bring on peritonitis. Perinephritis will often spread and lead to intraperitoneal inflammation. Splenic and pancreatic diseases have the same result. Intussusception of the nursling leads to local hæmorrhage and inflammation. Irritation and inflammation are quite frequent in the left hypogastrium of the young, where the normal long colon of the infant is sometimes folded in a number of flexures. A preceding attack of peritonitis is perhaps the most frequent cause of a subsequent attack.

Alterations of the intestinal mucous membrane are the initial stages of local peritonitis in many cases—of general peritonitis in others. Not only the intima and submucous tissues suffer, but the muscular layer also. A simple intestinal catarrh grows speedily into enteritis. Peritonitis is also communicated to the muscular and mucous tissues, thereby spreading and resulting in œdematous infiltration, paralysis and constipation. Thus also diarrhœa may develop a local peritonitis. Intestinal ulceration with perforation causes widespread peritonitis and death; while ulceration, without perforation, will cause local peritonitis, which, however, might become a fatal acute diffused peritonitis under favorable circumstances at a remote period.

Chronic peritonitis is frequently not recognized. Respiration need not be accelerated in pelvic peritonitis, perimetritis and pericystitis. Occasionally vomiting is wanting; constipation is frequent; diarrhœa not unusual; horizontal position is often uncomfortable; the abdomen may be tumid.

But a chronic peritonitis may sometimes be thus diagnosticated: Patient on his back; extend and then flex extremities; pressure is tried—soft, hard, sudden or gradual. Often the seat of inflammation or adhesions is thus made manifest. In many cases, however, the best plan is to make deep pressure; if no pain, relieve the pressure at once, when a local pain may be felt. Change of position of the bowels may arouse pain; sharp pain after a full meal may point to adhesions of the stomach; if it occur three or four hours after eating, to chronic colitis; quickened inspiration to perihepatitis, etc. The variability of pain depends on the degree of irritation or congestion. Extensive peritonitis in the pelvis may not cause pain except such as is waked up by defecation, cohabitation, micturition. Pericystitis is characterized by pain when the urine is about half voided, and the bladder contracts more efficiently—much resembling the spasmodic pain of vesical catarrh, but the pain is more localized above the pubes and more readily manifests itself by pressure. The anatomical changes of chronic peritonitis give rise to enteralgia produced by abnormal bowel contents, fermentation, flatulence, etc. By peritonitis, intestinal movements are retarded, stenosis, twisting and adhesions, etc., may result, and through these results every function is interfered with. The sequelæ of chronic peritonitis are very various. A simple attack of acute exudation may shape the future of the patient.

The indications of treatment of enteralgia depending on chronic peritonitis are determined by its results and symptoms, among which, beside pain, are sluggishness of a part of the intestine, constipation, adhesions, intervening subacute and acute peritonitis. These latter require absolute rest, support for the knees, ice or hot applications according to circumstances, opiates, etc. As a general treatment, this plan is more justifiable than the magnesium sulphate and turpentine enemata recommended by some. A treatment under which an occasional patient may escape death must not supersede one which has proven to be successful in most cases, and beneficial in all. Localized attacks mainly in the right hypochondrium, demand local applications, as

a few leeches occasionally; and morphia subcataneously may become necessary. Old adhesions, etc., are not amenable to medicinal treatment. Great physical exertion, lifting, pressure on the abdomen, jumping, etc., must be avoided. Keep bowels regular by daily enemata—even when there is an occasional apparent diarrhœa, for this diarrhœa is often complicated with constipation. Wear a snug bandage covering the whole abdomen, fastened down by perineal bands. Wear such a bandage for years after the last complaint of pain. Generally this bandage gives immediate relief. Without the immobility given by it to the sore intestine, he does not expect a case of chronic peritonitis to do well.

Invited guest, Dr. W. D. De Garmo, of New York, N. Y., read a paper on the *Surgical Treatment of Hernia*—the manuscript of which, with illustrations, were taken home by the author for some addition and has not been returned.

Dr. John Ridlon, of New York, read a paper on

Some Practical Points in the Mechanical Treatment of Hip Disease, With Special Reference to the Use of Thomas' Splint.

The subject was discussed from the standpoint of the general practitioner of medicine and surgery, and the difficulty of obtaining and satisfactorily managing any of the forms of traction splints considered. The writer then went on to say that plaster of Paris is a convenient and comfortable dressing, when applied from the ankle to the axilla, but not easily applied in certain cases, and, when renewed, as it must be every month or two, for three or four years, not inexpensive.

Treatment by weight and pulley with Buck's extension, however useful as a temporary expedient, is not satisfactory as a plan of treatment, as it does not prevent flexion and abduction, resulting from muscular spasm, and it does not prohibit voluntary motion at the joint. The method of Howard Marsh, however, is very satisfactory when traction is indicated, and when rest in bed is not contra-indicated.

To one who is satisfied to treat tubercular joint disease in any part of its course without traction, or who is so circumstanced, as the general practitioner is, that he must treat all walking cases without traction, and to one who believes that immobilization, and not traction, is chiefly indicated in the management of these cases, Thomas's splint will prove of great service. It can be made by a blacksmith and shoemaker, and should not cost more than $2.50. The splint is made of soft iron; steel will not do, being too stiff and

elastic to be readily moulded to the patient and remain rigid when once fitted. (Splints, patterns, and wrenches, for fitting the splints were shown).

It is a mistake to consider the splint as essentially a walking-splint. It should be applied as early as possible without using other means to overcome the flexion, and the patient should be kept in the horizontal position—not necessarily in bed, however,—until all involuntary muscular spasm has subsided. Then he is allowed to walk around on crutches and a high patten. The patient, under no circumstances, must be allowed to stand upon his diseased leg until convalescence is well established, if the best results are to be obtained. There must be no movement of the joint The physician must restrain his curiosity, to "test the joint" to learn how much motion there may be from time to time, unless he would prolong the disease and increase the chances of anchylosis.

Dr. Joseph A. White, senior surgeon to the Richmond Eye, Ear, Throat and Nose Infirmary, presented the

Report on Advances in Ophthalmology, Otology, and Laryngology.

He stated there had been no brilliant discovery and no new field of research opened up in this line of work, whilst much had been done in a great way to advance the diagnosis of treatment of these spinal diseases.

In ophthalmology, the discussion on iridectomy in cataract extraction would fill volumes, the tendency of most writings being a return to "simple extraction. In the opinion of the Reporter both simple extraction and extraction with an iridectomy have their application, and a surgeon cannot confine himself to either.

The after treatment has also been modified and some writers even go so far as to dispense with the commonest rule of conservative surgery, allowing the patient operated on to walk about as usual with the unoperated eye open and the other closed by a piece of plaster. The Reporter thought proper prudence would suggest the same rest, quiet, and surgical precautions against failure as in other surgical procedures.

In detached retina Prof. Schoeler, of Berlin, has reported cures from injections of tincture of iodine into the vitreous and sac, but as yet no method of treatment has proved satisfactory.

Transplantation of the cornea has been an experimental operation only, and with the exception of one case of Von

Hippel's, which was a partial success, all the attempts have proved failures—even the so-called successful ones.

In defects of the ocular muscles with, or without refractive errors, headache, eyeache, etc., can be relieved by proper adjustment of the muscular action of the two eyes by prisms or tenotomy. Geo. Stevens, of New York, ascribes all kinds of reflex disturbances, such as chorea, epilepsy, mental aberration, etc., as well as sick headache, neuralgia, etc., to the nerve irritation resulting from imperfectly acting ocular muscles, and reports numerous cases of cures by the operative correction of the defect. Time will demonstrate the value of this view in regard to epilepsy, mental troubles, etc., but the Reporter thinks there is no doubt of their correctness in regard to headache, eyeache, etc., as he has had extremely favorable results in such cases by following Dr. Stevens' methods of tenotomy and resection of the recti muscles for their relief.

Dr. Stevens in the past year has presented to the profession an instrument called a Phorometer, which simplifies the determination of muscular defects and is valuable in a saving of time and in producing greater accuracy.

In his own experience, the Reporter finds that the modified tenotomy of a contracted tendon and presection of its antagonist gives better results in strabismus than the ordinary method of complete tenotomy, giving more perfect motion and a better chance for binocular vision.

In otology and laryngology there is little to report beyond noticing the facts that the dependency of aural diseases upon *nasal troubles* is becoming more generally recognized, and that the treatment of nasal diseases is becoming more strictly *surgical*, so-called catarrh being radically cured by surgical measures and not by local applications, which are only useful for cleansing and antisepsis.

Dr. J. Herbert Claiborne, Jr., of New York, N. Y., read a paper, entitled

Primary Iritis—Its Diagnosis and Treatment.

Opened with a short description of the anatomy of the iris and contiguous parts. He called particular attention to the fact that the pupillary margin of the iris rested upon the anterior surface of the lens in a condition of health. This fact has a most important bearing upon the value of early treatment of the disease. Physical signs rather than subjective symptoms are to be relied upon in making a diagnosis. Simple inspection is quite sufficient for diagnostic purposes, if the observer has good eyes. The bi-focal illumi-

nation was a great help and would discover the condition of the anterior surface of the lens. The only symptom worth paying attention to is tenderness on pressure in the ciliary region. This was conclusive of ciliary congestion, but not necessarily of cyclitis. The most prominent signs of course lay in the iris itself—cloudiness, puffiness, etc. But great attention was directed to the pericorneal injection, which is characterized by the appearance of straight episcleral vessels that run directly toward the cornea like spokes to the hub of a wheel.

The treatment of iritis should be conducted under the great "therapeutic trilogy," dilation of the pupil, local blood letting, and systemic treatment. Dr. Claiborne preferred to combine cocaine with atropine tn causing dilatation of the pupil, on account of the more powerful effect of the combination on the pupil and on account of the anæsthetic action of the cocaine. He preferred to use all mydriatics in sufficient strength to obtain dilatation and decried the use of weak solutions. He suggested nothing weaker than a one per-cent. solution. He preferred above all others a combination of duboisine (one per cent.) and cocaine (six per cent.), but called attention to the powerful effect of this combination and advised against the use of more than three drops of this in three or six hours. As to blood-letting, he preferred that leech which takes deepest hold, sticks longer, and sucks the most blood. If artificial leeches be employed, as a cup, he suggested the use of the small chartense or ligneum glass. Applications of hot salt water every hour or two were suggested. In the systemic treatment, Dr. Claiborne opened the attack by opening the bowels. When syphilis was the cause, he used calomel; when rheumatism, epsom salts He preferred inunctions in the beginning under all circumstances, but in syphilitic iritis followed these by the mixed treatment, and toward the end of the attack by the iodide of potassium. In the rheumatic form, great stress was laid on the salicylate of soda in ten to twenty grain doses, repeated every two or three hours well diluted. He considered this agent of great use even when the cause was syphilis. For the pain of iritis he considered the use of morphia unnecessary since the pain would cease when the pupil had been dilated and blood drawn. He had found antipyrin of great advantage in relieving the nocturnal and diurnal pain of iritis when the pupil had not yielded to leeching and mydriatics. The speaker acknowledged a respectful allegiance to quinine for its general stimulating

and tonic effect upon the general system, Russian and Turkish baths were great adjuvants in the treatment. Dr. Claiborne pointed out the necessity of placing the leeches in the temporal region about half an inch from the outer canthus, in order to drain the ophthalmic artery through the tempora-malar branches of the lachrymal.

The paper was directed mainly to general practitioners. The responsibility of preserving the sight of an eye with iritis devolved upon him who sees the case first.

A paper by Dr. E. M. Magruder, of Charlottesville, Va., was presented, reporting two cases of

Neurectomy for Facial Neuralgia with Recovery.

His first case was a gentleman, age 71, who had a persistent neuralgia for fourteen years, that no medicine cured, although he had consulted eminent specialists. Seven drops of fluid extract gelseminum every three hours gave greater relief than any other medicine except morphia. But all medicines failing, the patient was chloroformed, and, with strict antisepsis, an incision was begun just below the lower orbital margin, over the infra-orbital foramen, straight downwards, parallel with the nose, towards the lip and ended on a level with the lower border of the ala nasi—about an inch incision. The fascia and fibers of the levator labii superioris were torn through with the handle of the scalpel, and the nerve exposed at its exit where it divided into its branches. Each branch—the palpebral, the nasal and the labial—spreading into a fan-shape as it neared its destination, was dissected out as far as it could be followed without mutilating the face too much. The main trunk was then seized with forceps at the foramen, drawn out as far as possible without breaking it, and cut off close to the bone, after which the various branches were divided at their farthest point of dissection. The wound was closed with fine silk sutures. There was at first considerable paralysis of the side of the face and loss of sensation, but these disappeared except from the right half of the upper lip, which is still without motion or sensation. There has been no recurrence of the neuralgia. The patient feels like a new man.

Case II was a lady, age 58, who has had facial neuralgia for ten years. At first it was confined to the left lower jaw, never passing the middle line of the chin; but afterwards extended to the left external ear, temple and side of head above and behind the ear (auriculo-temporal) to the left side of the tongue (gustatory), and then to the left side of the floor of the mouth (mylo-hyoid). The diagnosis was neu-

ralgia of the inferior dental nerve, with reflex and sympathetic phenomena exhibited by the auriculo-temporal, gustatory and mylo-hyoid nerves. As to treatment, teeth had been extracted, analgesics had been used, etc., and finally total neurectomy of the inferior dental nerve—including its branches—was done with cure. In the operation, avoid injury of the facial artery and Steno's duct. Entering the scalpel just in front of the posterior border of the ramus, just below the parotid duct and lobe of the ear, a curvilinear incision was made downward, half an inch in front of the inferior maxillary angle, then forwards a little above the lower border of the ramus, and upwards just behind, and avoiding the facial artery, stopping short of the line of Steno's duct above. The flap thus shaped was raised by shaving the masseter muscle from its attachment to the outer surface of the ramus and the bone laid bare. With a half-inch trephine, cut out a button of bone from the centre of the outer plate of the ramus, exposing the nerve in its bony canal. Seizing the proximal end of the nerve with forceps, strong traction was made from the direction of its origin; it was then cut off with scissors close to the bone as it entered the circular cavity made by the trephine. Then, the wound being stuffed with moist antiseptic cotton, and the hæmorrhage stopped with pressure, a second incision was made, an inch long, horizontal in direction, over the mental foramen (below the root of the second lower bicuspid tooth), beneath the depressor anguli oris, disclosing the mental nerve and its branches beneath the last-named muscle. The nerve was grasped with forceps and pulled upon, but broke off at its point of exit. The branches were then dissected out and cut off as far as possible from the fora men. Then returning to the first wound over the ramus, and chiselling away the wall of the dental canal or one eighth inch from the circular cavity in the ramus, so as to expose this end of the nerve which had been divided by the distal side of the trephine, it was drawn out of the dental canal with forceps, in its entire length from the ramus to the mental foramen. In all, three and three-eighths inches of nerve structure were removed. The wounds were closed and the patient was perfectly relieved, without any return of neuralgia since. The paralysis of the left side of the face disappeared in about two weeks.

The lesson learned is in all operations for facial neuralgia, remove as much of the troublesome nerve and its branches as the anatomical formation of the parts will possibly allow, without rendering the procedure too grave.

Dr. Lewis G. Pedigo, of Roanoke, Va., reported on

Neurology and Psychology.

After an exhaustive review of the various items of progress in the study and treatment of nervous and mental diseases, and of improvements in asylum management, of advanced views on the forensic aspect of insanity, he devoted the latter portion of his paper to the timely subject of hypnotism and allied conditions. By special invitation, he brought before the Society a subject and illustrated the manifold phases and stages of hypnotism and suggestion by actual experiment. The subject was taken rapidly through the lethargic cataleptic and somnambulic stages of *la grand hypnose* of Charcot, and the two chief points in controversy between the Charcot and Bernheim schools were illustrated and explained as the lecture proceeded. The weight of evidence seemed to be in favor of Charcot's position. The subject used in the demonstration is said to be one of the best in the world. Bernheim consumes from five to fifteen minutes in placing his subject in the hypnotic trance. Dr. Pedigo placed this one in *la grand hypnose* within two minutes. One striking feature of the seance was the resemblance of certain manifestations to a hystero-epileptic convulsion.

Dr. C. R. Cullen, of Waldo, Florida, forwarded a paper on

Railroad Injuries,

In which he reported eight parties injured by railroad accidents. Several of the parties had ribs fractured; two had hands crushed; one, besides broken ribs had cystitis, fractured arm and abscesses; one had fractured femur, which was finally removed, and the foot on the other leg was badly crushed; several bones and pieces of bone were successfully removed with full restoration to health.

Dr. Cullen urged that doctors, not engaged in the service of the railroads, insist upon the same compensation, when they are called upon for such service, that is received by doctors engaged in the railroad service.

Mr. Hugh Blair, delegate from the Virginia Pharmaceutical Association, Urinologist, etc., of Richmond, Va., by invitation read a paper on

Diagnosis by Means of Urinary Analysis.

The view of Harley is that the state of the urine is a key to the condition of the body. While some diseases may not impress the urine, it is nevertheless true that morbid urine is indicative of disease. After alluding to a few salient

physiological and urino-chemical facts, he first spoke of *renal inadequacy*—so-called by Sir Andrew Clarke to indicate notable absence of urea and other solids. If the renal nerve centres do not supply the necessary nerve influence, this fact may be determined, after excluding other causes, by the low specific gravity of the urine. Or if the general nervous system is overworked, there follows an excess of alkaline phosphates in the urine. It is probable the nervous anatomy is fed by licithin, a substance containing phosphorus. The best way of supplying phosphorus to licithin is to give the hypophosphites. When digestion and metabolism are improperly performed, deleterious matters accumulate in the blood; and if of nitrogenous character, the kidneys excrete them if they are able. Destructive metamorphosis of albuminoids takes place chiefly in the liver and urea is formed. In some functional hepatic disorders and lesions, uric acid, instead of urea, appears in the urine, with the result of severe disease, such as gout, chronic nephritis, renal calculi, etc. Uric acid crystals are easily recognized by the microscope. If the crystals do not appear, excess of urates, acid urine, and high specific gravity are present. *Lithæmia* or uric acid in the blood, is a chronic condition of the overworked and over-anxious, not so serious a disease as gout, but is ever active and causes some distressing and obscure symptoms. It is due to chronic functional disturbance of the organs of the portal circulation; and is recognized by the high specific gravity of the urine, its acidity, the excess of lithates and phosphates, and, frequently, oxalate of lime crystals and especially by the pigments in the urine. The condition is recognized by the peculiar change in color in the urine during Pavy's copper test for sugar. *Diabetes* indicates grave disease. It is necessary to differentiate it from hydruria and polyuria. Any *icteric urine* will stain white cloth yellow; but its diagnostic value is not yet of practical use. Urinalysis enables us to diagnose the several forms of *Bright's disease*, and to keep us informed as to the progress of the nephritis. It is only by urinalysis that the diagnosis can be made between *pyelitis and cystitis*. In short, the value of urinalysis extends to every disease characterized by the presence of pathological urine. Successful urinary analysis involves knowledge of the pathology, physiology and anatomy of the urinary apparatus, and also of chemistry and microscopy. If time permitted, he would note some interesting cases of urinalysis, made by himself for physicians,

which have enabled practitioners to determine diagnosis and in numerous instances save the lives of their patients.

Dr. A. F. Kerr, of Williamsville, Va., reported a case of

External Glanders or Farcy in Man.

The rarity of the disease, especially in mountainous regions, justified, he thought, a note or two about the case. Glanders is an infectious disease, principally of domesticated equine animals and to man by inoculation of the glanders bacillus. It originates in solipeds, although it has been known to originate in cloven-footed animals. Having originated, infection occurs for only a short distance through the atmosphere or the disease may be communicated through the ingestion of infected matter, or through the seminal secretions to the female in coitus, etc. In man, the chief source of infection is the horse—being rarely communicated from man to man. The point of attack is usually an abrasion upon the skin or mucous membrane. The incubative period is from one to four days, in inoculated cases. The wound becomes tense, swollen, painful, with a dark or yellowish erysipelatous redness, and the edges become puffy and everted. A sanious matter issues, and the surrounding lymphatics become swollen and red, and the glands become enlarged and tender; constitutional disorder sets in in a few days—langor, extreme weakness and prostration, with aching in the limbs and head; rigors alternating with fever, or a continued fever after the first violent chill; sometimes there is nausea and vomiting, and even diarrhœa. When not due to external inoculation, the febrile symptoms appear first, and *then* the other conditions which have been noted first in the description of cases due to external inoculation. The phlegmonous swellings along the lymphatics become abscesses and discharge small quantities of thick, slimy pus. The resulting sores become ulcerous with grayish base. Temperature rises perhaps to 104°.

His case was a young, healthy man in 1886. He contracted glanders from treating a mare supposed to have "greased heel" or "scratches." He first noticed a painful swelling on the point of the second finger of the left hand, which had been slightly cut with a pen-knife. The swelling was yellowish, edges of wound everted and puffy, and discharged a thin sanious material; the surrounding lymphatics became enlarged and all the fullness of the history of glanders in man was complete. Treatment began with a brisk purge, followed by quinia and muriated tincture of iron, and an exclusive milk diet. The swellings on the

forearm were freely laid open and cauterized with nitrate of silver, all diseased tissues removed and the resulting sores packed with iodoform, over which was laid medicated jute. Subsequent washings were made with carbolized water. Recovery was prompt.

A Few Original Observations on Blood Gravitation in Health, and Disease,

Was the title of a paper by Dr. W. W. Parker, of Richmond, Va., of which the following are the conclusions:

1st. The first wound ever inflicted upon the human body was probably upon one of the extremities, and the relief following the elevation of the wounded member, was the first illustration of blood gravitation in disease.

2nd. A case reported of the wonderful curative power of elevating the leg at 80° of a boy struck on the tibia by a base-ball.

3rd. A singular case of death from the application of a mustard plaster to the ankle being an exception to the rule, yet establishing it.

4th. Gravitation of blood in the stomach is made useful in preventing emesis in certain cases.

5th. A remarkable case of acute inflammation of the neck of the bladder in a woman, with retention of urine, at once removed by the forcible elevation of the hips of the patient. Other cases reported.

6th. The avoidance of varicose veins of the legs in shop-keeping men and women by sleeping on a double-inclined plane, and the importance of those predisposed to apoplexy, sleeping with the head well elevated.

7th. The effect of the position of the body in phthisis, in liver, and other congestions. A case of an infant with suffocating catarrh at once relieved by the elevation of the head and chest.

8th. A beautiful illustration found especially in the herbivorous, or grazing animals, of nature's plan of counteracting the hurtful gravitation of blood to the brain.

9th. A lesson suggested from these considerations and facts to those unwise doctors and deluded people who think "a man cannot die until his time comes." That mechanical law in the body is as inflexible as the same law in the machine, and loss and ultimate destruction will come as certainly from neglect of these laws, to the one as to the other.

Dr. A. C. Palmer, of Norfolk, Va., prepared a paper on

Outline Tests for Muscular Insufficiencies of the Eye, with Report of a Case.

Leaving out of consideration cases of strabismus, etc., he confined attention to the more minute forms of insufficiencies, known by the term *heterophoria.* In strabismus, one eye soon accustoms itself to see the object looked at, while the other is idle as to the effort at vision. But in heterophoria, there is acute normal vision, in which every detail of an object is seen; but the external rectus of one or both eyes is just too weak to prevent the internus rectus muscle from turning the ball in, just past the normal axis. Eyes, such as these, have to swing a very little way to make the image seen with one eye a little to one side of that seen with the other; and the confusion resulting is all the worse from the very fact that each eye sees so clearly that neither image can be ignored. The patient has before him two similar images which are continually receding from, and blending with one another. But he will involuntarily overcome this blurring of outlines if he can possibly spur up the externus muscle to pull the eye out to its proper place. Just these insufficiencies or strains produce more mischief than true strabismus. Heterophoria is subdivided into esophoria (eyes tend to turn in too far), exophoria (tend to turn out too far), and hyperphoria (where one eye swings on a higher level than its fellow). Prisms deflect an image towards their apices on their edges. The relative strength of each of the four recti muscles, in their normal conditions, are first presumed to be ascertained. Thus the externi should diverge the eyes sufficiently to make the image single when prisms of 8° are placed before them, with their bases in. The interni, after a little trying, should converge sufficiently to single images when prisms of 50° are placed before them—bases out. If a patient with neurasthenia presents, place him in an erect position, and direct his vision on a lighted candle, twenty feet off. Then cover each eye alternately, and notice whether the light moves up or down, or to the right or left. This paralax test, introduced by Dr. Alexander Duane, of New York, N. Y., often establishes at once the form of insufficiency. But should it not do so, then use the prism tests which the paper describes in detail. Dr. Palmer then explained the application of glasses to overcome each of the insufficiencies.

Therapeutic Posltion In Sexual Congress

Was the subject of a paper by Dr. Henry V. Gray, of Roanoke; Va. In many cases where wives have inflamma-

tory and painful diseases of the uterus, husbands will not keep their promises to the doctor of being continent. Each intercourse, with full intrusion of the penis in the ordinary position, of course aggravates the inflammatory trouble and becomes painful to the wife—making the marital act often disgusting to her, and always dreaded. What is to be done? Advise the husband that if he will have intercourse. to do so with the wife in the position for introducing Sims' speculum. She is to lie upon her side, with thighs and legs flexed moderately—the upper limb more than the lower. The buttocks of the wife are thus towards the husband. In this position the bladder and womb are both out of harm's way. The perineum gradually relaxes in the effort, and the womb does not receive a bruise or jar. Dr. Gray has in several instances advised this mode of sexual congress, greatly to the relief of his patients with womb diseases, etc.

Dr. D. Mayer, of Charleston, W. Va., Fraternal Delegate from the Medical Society of West Virginia, read a paper on the

Use and Abuse of Obstetric Forceps.

He showed that when the forceps are properly used they are not damaging; that harm may come when used too late; that the time has arrived in obstetric advances when the practitioner will be compelled to use them because intelligent women demand their application to shorten their period of suffering.

Dr. L. B. Anderson, of Norfolk, Va., presented the

Report on Hygiene and Public Health,

In which he classed etiological factors into (1), those which are known; (2), those which are purely hypothetical and chimerical, such as malaria, vegetable parasites, bacteria, etc.; (3), those that are partly demonstrable and partly hypothetical, namely, ptomaines and leucomaines—from which sanitary laws are deduced.

Dr. J. G. Wiltshire, of Baltimore, Md., read a paper on

Anæsthetics,

But took his manuscript home to make some additions, etc,, before presenting it to the publishing committee.

Dr. R. I. Hicks, of Warrenton, Va., read a paper on

Drainage in the Treatment of Ascites,

And reported a case in illustration.

The Secretary exhibited for Dr. —— (name not recorded) a unique specimen of

A Thread the Nucleus of an Ovum.

All that is known of the history of the case is that a

woman supposed to be about three months gone in pregnancy was seized with labor pains and aborted—the fleshy mass expelled being about the size and shape of a large goose egg. Through the centre, running longitudinally, was a common cotton sewing thread. How it became the nucleus of the ovum is not understood.

The session adjourned with a magnificent banquet, given by the profession and citizens of Roanoke, Va.

Book Notices.

Hand-Book of Physical Diagnosis of Diseases of the Organs of Respiration and Heart, and of Aortic Aneurism. By R. C. M. PAGE, M. D., Professor of General Medicine and Diseases of the Chest in New York Polyclinic, Visiting Physician to St. Elizabeth's Hospital, to the Polyclinic Hospital, to Northwestern Dispensary, Etc. New York: J. H. Vail & Co. 1889. Cloth 8vo. Pp. 291. Price, $2. (From the Author.)

It is so seldom that a work contains an advantage more than is claimed on its title page that we would be neglectful of duty were we not to add that the volume before us is well illustrated by wood-cuts and a number of colored plates—nearly all of them original. The author treats the subject of physical diagnosis from a logical stand-point—"the deductions in each case being drawn chiefly from personal observation." He makes the subject easily understood, and helps wonderfully the teaching by book the lessons that are usually learned only by personal clinical experience and observation. That is to say, the student who learns well the lessons in this book will have little difficulty in recognizing the meaning of the abnormal sounds as elicited by percussion or auscultation of the chest. This book has no equal in practical diagnosis—embracing all the important points contained in former works; and modestly contributes a number of plain practical facts and explanations which materially assist the student in understanding the physical signs of disease. We are glad to see that the *Wiener Medizinische Blatter*, of August 29th, entertains practically the same high opinion of its merits that we have of the work. We recommend this *Hand-book* to every practitioner of medicine as the best one on diagnosis of the chest, etc., that we know of.

Treatise on Surgery—Its Principles and Practice. By T. HOLMES, M. A., Cantab., Consulting Surgeon to St. George's Hospital, Etc. With 428 Illustrations. Fifth Edition. Edited by T. PICKERING PICK, Surgeon to and Lecturer on Surgery at St. George's Hospital, Etc. Philadelphia; Lea Brothers & Co. 1889. 8vo. Pp. 1008. Leather, $7; Cloth, $6. (From Publishers.)

It is hard for even the constant student of medicine to keep up with every advance in the various departments. In no field has advance been more marked than in surgery. This becomes the more conspicuous when an edition of a standard work of to-day is compared with its first edition of only a few years ago. The first edition of Holmes' Surgery in 1875 was debating the principles of antiseptic surgery; the present edition accepts the principle as a fact and simply details the best modes of applying the treatment to different cases. Then, he thought no work for students on general surgery was complete without a chapter on eye diseases, etc., and he introduced a chapter then of about 75 pages on that subject; now he affirms that all surgical questions, even, relating to the eyes should be given over to specialists, and hence the present (fifth) edition does not treat of them at all. The chapter on inflammation required radical changes as compared with that in the first edition. Abdominal surgery and intestinal obstruction, diseases of bones and joints, of the breast, etc., are a few of the subjects regarding which new doctrines and practices have been advocated so forcibly as to require new chapters, etc; but in the present revised form, this *Treatise on Surgery* must continue to stand pre-eminent as an authority for surgeons and a text-book for students. Like all the other works of the Publishers, this volume is finely issued from the press.

Laboratory Guide in Urinalysis and Toxicology. By R. A. WITTHAUS, A M., M. D., Professor of Chemistry and Physics, Medical Department of University of City of New York, Etc. Second Edition. New York: Wm. Wood & Co. 1889. (From Publishers.)

This book is bound so that it opens as a flap-book, and every other page is blank for memoranda, etc. It contains 75 pages less than octavo in size. No attempt is made at discussion anywhere; but facts are stated briefly as facts; and the means of arriving at these facts are stated in as terse a manner as practicable. Pages 3–32 are given to analyses of urine; pages 33–40 to analyses of urinary deposits. The remainder of the book is given up to the de-

tection of poisons, the naming of respective antidotes, etc. The book is precisely suited to its purpose—"a laboratory guide in urinalysis and toxicology."

Essentials of Physiology. *Arranged in the Form of Questions and Answers.* By H. A. HARE, B. Sc., M. D., Demonstrator of Therapeutics and Instructor of Physical Diagnosis in Medical Department University of Pennsylvania, etc., etc. Second Edition; thoroughly revised and Enlarged. Philadelphia: W. B. Saunders. 1889. Cloth. 12 mo. Pp. 194. Price, $1. (From Publisher).

This is No. 1, of "Saunder's Question Compends," which is exactly the class of book that must ever be in demand wherever there are Boards of Medical Examiners, as in Virginia, North Carolina, Alabama, etc. These Compends are wanted by the Examiner and by the party to be examined. The No. 1, now before us, is on Physiology, and in the compilation of the facts rehearsed, the standard works of Landois, Yeo, Foster, Dalton, Herman, Baker, and Chapman, have all been consulted. Matters that are still under debate are not discussed. Students who are attending their lecture courses will also find this series useful in the class room as well as in preparing for examinations for graduation, etc.

Book on the Physician Himself and Things that Concern his Reputation and Success. By D. W. CATHELL, M. D., of Baltimore, Md. 9th Edition, Revised and Enlarged. Philadelphia and London: F. A. Davis. 1889. Price, $2. (From Publisher).

This book has had a wonderful success—showing that there was a great need for just such a work. Its influence is being more and more widely felt, and is resulting in greater liberality of views with greater professional courtesy on the part of one doctor to another. Briefly stated, it is a first rate commentary upon the Code of Ethics as adopted by the American Medical Association. It gives in detail much good advice, and is commended to the leisure hours study of the "physician himself."

Wood's Medical and Surgical Monographs for August and September. 1889. 8 vo. Pp. 296 and 290 respectively. Published monthly. $10 a year; single copy $1.

The tables of contents of these two monthly issues show how well the selection of these monographs is kept up with a view to the wants of the practitioner. The *August* num-

ber contains: "Treatment of Syphilis at the Present Time," by Dr. Maximillian von Ziessel; "Treatment of Inebriety in the Higher and Educated Classes," by James Stewart, B. A.; "Manual of Hypodermic Medication," by Drs. Bourneville and Bricon. This "Manual" alone is worth the price of several numbers. The *September* number contains: "Congestive Neurasthenia or Nerve Depression," by Dr. E. G. Whittle; "Art of Embalming," by Dr. B. W. Richardson; "Etiology, Diagnosis and Treatment of Tuberculosis," by Dr. H. Von Ziemssen; "Psycho-Therapeutics, or Treatment by Hypnotism," by Dr. C. Lloyd Tuckey; "Sexual Activity, and the Critical Period in Man and Woman," by Dr. Louis de Séré. This September number completes Volume III, and contains the Index and Contents for the same, with title page, etc.

Treatment of the Morphine Habit. By Dr. ALBRECHT ERLENMEYER Translated from the German by E. P. HURD, M. D., Newburyport, Mass. Paper. 12 mo. Pp. 113. Price, 25 cents.

This is one of the series of "Physician's Leisure Library" being published monthly by Mr. George S. Davis, of Detroit, Mich. Dr. Erlenmeyer's great work on the "Morphine Habit" was too large for reproduction by translation in this "Library;" but the chapter on *Treatment*—the practical one—has been selected, and is now presented very well edited, and is recommended as containing many important practical truths or lessons for the physician who has to deal with a morphia inebriate.

Anatomie Topographique du Duodenum et Hernies Duodenales. Par Jonnesco, Prosecteur Provisoire de la Faculte, Interne des Hopitaux (*Typographical Anatomy of the Duodenum and Duodenal Hernias*. By DR. JONNESCO, etc.) Paper. 8vo. Pp. 107, with 21 cuts in the text and 13 plates. Price 3 francs. Paris: *Aux Bureaux du Progrès Médicale, 14 Rue des Carmes.* E. Lecrosnier et Babé, Editeurs, Place de L'Ecole de Medicine. 1889. (From Publishers.)

The first 88 of the 107 pages of this little work are taken up with a very full description of the duodenum and its peritoneal covering, including their evolution and development, with special reference to the formation of certain pouches by the peritoneal folds. The importance of these pouches lies in the fact that they may become the seat of herniæ through reason of a fold of the intestine slipping into them and gradually enlarging them by gravity until

large sacs are formed. The intestine may become strangulated by being constricted by blood-vessels contiguous to the mouth of the sac. Such herniæ have been mentioned by a few authors; notably by Astley Cooper, under the name of mesocolic hernia, and by Toritz, under the name retroperitoneal hernia. The 19 final pages are taken up in a description of this variety of hernia with an account of several cases. This little volume, which is well printed and illustrated, will be of interest to anatomists and surgeons.

R. M. S.

Recherches Cliniques et Therapeutiques sur l'Epilepsie, l'Hysterie et l'Idiotie. Compte Rendu du Service des Epileptiques et des Enfants, Idiots et Arrieres de Bicetre, Pendant l'Annee, 1888. Par Bourneville, Medecin de Bicetres Courbarien, Raoult, Sollier, Internes du Services. (*Clinical and Therapeutical Researches upon Epilepsy, Hysteria and Idiocy. Reports of the Service of Epileptics and Idiotic and Weak-Minded Children at the Bicêtre during the year 1888.* By BOURNEVILLE, etc.) Ninth Vol. of the publication. 8vo. Paper. Pp. LX, 92, with 25 cuts. Price 3 francs 50. Paris: *Aux Bureaux du Progrès Médicale, 14 Rue des Carmes.* E. Lecroisnier et Babé, Editeurs, Place de l'Ecole de Medecine. 1889. (From Publishers).

The annual report of the Service occupies the first part of this volume and takes up 59 pages. The second part (90 pages) contains the clinical report, embracing five chapters. Of these, the first reports a case of idiocy with pachydermic cachexia; the second is a statistical communication upon the rôle of consanguinity in the etiology of epilepsy, hysteria, idiocy and imbecility; the third deals with fronto-facial asymetry in epilepsy; the fourth with idiopathic epilepsy, the temperature during epileptic attacks and experiment with bromide of nickel in epilepsy, the results of which were not at all favorable. The fifth and last treats of imbecility and mental instability with perversion of instincts. Such reports contribute always something to our general store of knowledge and are not without value. Like the preceding, the book is well gotten up. R. M. S.

International Pocket Medical Formulary—Arranged Therapeutically. By C. SUMNER WITHERSTINE, M. S., M. D., Associate Editor of "Annual of Universal Medical Sciences," etc. Philadelphia and London. F. A. Davis, Publisher. 1888. Leather—tuck and flap, with pocket. Size, 6¾x3⅔ inches. Pp. 267 printed, besides blank interleaves. Price, $2. (From Publisher.)

This little work of convenient size and well-bound can be

easily carried in the pocket. The formulæ are arranged under the different diseases in alphabetical order, with thumb-letter index; containing the names of over six hundred authorities, both American and foreign. It contains a large number of the most recent formulæ, giving the best modes of treatment by the most eminent physicians. It contains: A Posological Table; Important Incompatibles; Tables on Dentition, Pulse, Metric System, and Obstetrics, etc.

Editorial.

A Few Words to Unsuccessful Applicants Before Medical Examining Boards and their Sympathizers.

Every trust faithfully discharged is attended with a greater or less degree of responsibility, and it is the responsibility incurred that makes the physician's life-work a hard one. Honors conferred are often costly, made so by responsibility already or to be assumed. In no field of professional work are these conclusions truer than in the work of the members of the Virginia State Board of Medical Examiners.

To the casual observer, it may seem to be easy to say to young men: You cannot yet enter upon your professional career; for a time, at least, you must renew your studies, to show a greater proficiency when you next come before the Board. If we recall the fact that many of the young men are known to be poor, many have worked hard for their opportunities and have taken every advantage of such as they have had, we can see that the work of the Examiner is anything but agreeable, and he who concludes otherwise must have a poor opinion of human nature. Only a stern sense of duty, a keen appreciation of responsibility, and a strict adherence to the oath taken when members of the Board bind themselves to execute their trust without fear or favor, can nerve them to disappoint and mortify such young men.

Not one of the Examiners but who has perhaps still fresh in his memory the dark clouds which seemed to hover over him in his early professional life, and such recollections must have their effect.

Personally, our sympathy for the rejected applicants is so deep that we cannot resist the impulse to offer them a few words of consolation:

We would contend that the conceived mission of the Medical Examining Board is not a warfare upon young men, but a contest with certain Colleges to compel them to give the young men better advantages. The controversy is not between the young men and the Board, but a difference of opinion between the Board and the Medical Schools as to what the requirements of graduation shall be.

We would ask the young men to realize the fact that the members of the Board have obligated themselves to the Medical Society of Virginia nominating them, and to the State of Virginia confirming the nomination through her Governor, to discharge the duties imposed as Examiners to their best knowledge and belief. They have no option in the matter; they must resign and shirk responsibility, must prove false to their trust, or else, in a faithful performance of duty, must reject some of the applicants.

From a long and intimate acquaintance with the members of the Board, we know that a majority of them put themselves in the places of the rejected applicants, and feel deeply for them. We know they realize the fact that they are crushing bright hopes and discouraging efforts which merit praise and a better fate.

Viewed in such a light, the failure of an applicant who has done his best will not be considered as disgracing him. The Board simply asks him to continue his studies for a few months. The Board will extend to all such a strong helping hand, will do all in its power to advance them professionally, and will give them all the more credit for persevering and succeeding after having once failed.

Viewed in the light we have represented, the Board merits spmpathy—not censure—for their faithful discharge of a disagreeable duty.

A Tri-State Medical Association

Of the profession in Alabama, Georgia and Tennessee will be organized in Chattanooga, Tenn., Tuesday, October 15th, 1889. Membership will be restricted to graduates of regular Medical Colleges in good standing. Papers of interest have been promised by prominent men. Dr. Frank Trester Smith, of Chattanooga, Tenn., who has been doing so much for the interests of the profession of his section, is Secretary of the Joint Committee composed of Committees from the several Medical Societies of Jackson Co., Ala., of Chattanooga and of Cleveland, Tenn., and of Cartersville and of Dalton, Ga. We wish it success.

Good Opportunity for Florida Practice.

A physician of prominence, large experience and having a good practice in Florida, wishing to retire from practice, makes the remarkably inviting proffer of selling out his medical cases, medicines, books, instruments, buggy and harness for $400 *cash*. Until January 1st, 1890, he will take his successor into full partnership, when he proposes to retire from the place and county. The Doctor has more than half the practice of the neighborhood, and his successor would have a good field. He will not sell on credit, nor to one that he thinks he cannot recommend to his patrons as a qualified physician and as a gentleman. A married doctor is preferred. Application should be made to the Editor of the *Medical Monthly;* and if the party is not known to him, he must furnish satisfactory references before he will be put in communication with the Florida practitioner.

The Southern Surgical and Gynæcological Association

Will hold its session this year in Nashville, Tenn., November 12th, 13th and 14th. The Preliminary Programme announces 34 papers, and others are yet to be announced. The influence of Dr. Hunter McGuire as President has had its desired effect in enlisting the interest of many who would not otherwise have promised papers, while the indefatigable energy, coupled with the judicious and executive ability of the Secretary, Dr. W. E. B. Davis, of Birmingham, Ala., have created a wider spread interest in this organization than we thought it possible to arouse in the profession of the South. The authors who have promised attendance and the contributions of papers are geographically distributed as follows: Canada 1; New York 1; Pennsylvania 2; Virginia 6; North Carolina 2; South Carolina 1; Georgia 5; Florida 1; Alabama 1; Mississippi 2; Texas 4; Tennessee 4; Kentucky 4; Missouri 1; Illinois 1. Others are still to be heard from. A more complete Announcement will be issued during this month. We are making arrangements to report the proceedings in our December number.

Location for a Physician in Florida.

We take pleasure in inviting attention to the advertisement of Dr. W. H. Stewart, (Mayor of Anthony, Florida), which appears in another column. The surroundings of the place are inviting; the opportunity for a practitioner is good, and any one seeking the very desirable combination described by Dr. Stewart, will do well to correspond with him.

Dr. Ephraim Cutter, of New York,

Delegate abroad of the American Medical Association, at the banquet of the British Medical Association, responded to the toast "Our Guests" for America. Dr. Cutter read a paper on "Galvanism of Uterine Fibroids" and demonstrated on the screen the slides of microphotographs which he and Dr. G. B. Harriman took in 1876 of the clinical morphologies of the blood, sputum, etc., with Tolles' superb, $\frac{1}{4}$th, $\frac{1}{10}$th, $\frac{1}{16}$th, $\frac{1}{50}$th and $\frac{1}{75}$th inch objectives.

Virburnated Celery.

We desire to call attention to virburnated celery, prepared by the Mellier Drug Company of St. Louis, Mo., which seems to be a most desirable combination for nervous prostration, brain exhaustion, and all forms of mental and physical debility.

Messrs. Tarrant & Co.'s Advertisement on "False Swearing"

Is admitted in this number because it exposes a false affidavit before a Berlin court, made by a member of the firm "Johann Hoff." The Eisner & Mendelson Company, of New York, are the American agents of this firm, and it appears that they also took an active part in the circulation of the misleading documents. We should hesitate to prescribe an article whose claim has to be sustained by such disreputable methods. The admission by Max Martin Hoff that he committed such a crime amounts practically to a concession that his article is a substitute for the *genuine Hoff's Malt Extract*, imported by Tarrant & Co., of New York. To avoid imposition hereafter, practitioners should be careful to note that the Hoff's Malt Extract they want is only that imported by Messrs. Tarrant & Co.

Gray's Emulsion of Pure Cod Liver Oil

Was one of the new products on exhibition in the Pharmaceutical Department during the recent session of the Medical Society of Virginia in Roanoke, well worth mention and consideration. It contains 50 per cent. oil, combined elegantly with the hypophosphites of lime and soda and perfectly pure beech-wood creosote. Its flavor is pleasant; the emulsion is perfect; its combinations are well selected; and in the limited opportunities yet allowed—being just now introduced to the profession—its value has been proven. For the present, address Dr. Henry V. Gray, of Roanoke, Va., who is the author of the prescription and originator of the process of emulsification.

The Virginia Pharmacal Company.

The leading pharmacists of this city have organized, under the laws of Virginia, with an authorized capital of $100,000, the *Virginia Pharmacal Company* for the manufacture of fluid, solid and powdered extracts, elixirs, pills and all other pharmaceutical products. Col. John B. Purcell is President, Mr. T. Roberts Baker, Vice President, Mr. R. W. Powers, Treasurer, Mr. G. G. Minor, Secretary. Mr. H. Bodeker, Dr. R. G. Cabell, Jr., Messrs. H. G. Forstman, John W. Pierce and Polk Miller compose the Board of Directors. Mr. A. T. Snellings, a Virginian, but for years in the Manufacturing Laboratory of Messrs. W. H. Schieffelin & Co., of New York, has been elected Chemist and Superintendent, who has a corps of competent, practical assistants and trained workmen, etc. The Company is just starting the manufacturing operations. During our visit to the Laboratory a few days ago, we were informed that in the course of a few weeks, every thing would be in readiness to supply the trade. Purity of articles and excellence of preparation are to be the principles prompting the management. Mr. Snellings is providing the most approved apparatus and adopting the most approved methods of manufacture. The advertisement of the Virginia Pharmacal Co. will begin in this journal as soon as the Company is ready to solicit orders—probably next month. From our personal knowledge of the parties forming this corporation, and personal examination of the factory, and observation of the care taken in the manufacture, we most cordially commend the Virginia Pharmacal Co. to the profession of medicine and pharmacy.

New York Polyclinic.

The Annual Announcement of this Clinical School for Graduates in Medicine and Surgery shows an attendance for the session of 1888–'9 of 383 physicians, making since the opening of the pioneer postgraduate school in 1882 a total of 1,883. These figures demonstrate, beyond all doubt, the popularity of the Polyclinic system of instruction. The most important feature of this year's catalogue is the Polyclinic Hospital. By the enlargement of their property the Faculty have established an extensive hospital, which will afford at all times ample material for all clinical purposes. The Polyclinic and Hospital building have been completely fitted out with all the modern appliances conducive to the healthfulness and comfort of the patients and physicians in attendance. The session of 1889–90 opened Monday, September 16th.

The Home and Retreat,

Established in Lynchburg, Va., for sick, wounded, etc., deserves the patronage of the profession. The arrangements for the care of patients are complete; the nursing is done by skilled hands; the management of the hospital wards is under the watchful care of Christian ladies who are moved only by the desire to do good; the fees for board, etc., are moderate; and the professional services are rendered by the doctors of Lynchburg, whose learning and ability and means for treating disease or injury, are not excelled by the profession of any other city of anything like its size. Patients have the right to select as their professional attendants any of the regular doctors of the city. We most cordially commend the enterprise, feeling assured that the best of medical and surgical treatment will be rendered to patients who may commit themselves to treatment in the Lynchburg "Home and Retreat." For further information, write to the Secretary, Dr. C. E. Busey, or to any of the doctors whose name is signed to the advertisement.

New Professors in Medico-Chirurgical College of Philadelphia.

Dr. Ernest Laplace, a native of New Orleans, La., has been elected Professor of Pathology in the Medico-Chirurgical College of Philadelphia, and Dr. Samuel Wolfe, of Skippack, Pa., will fill the chair of Physiology for the coming year. While studying under Koch, Dr. Laplace discovered the superior germicidal properties of acid sublimate of mercury, and the disinfectant qualities of sulpho-carbolic acid. Since his return to New Orleans, he has been a visiting surgeon to Charity Hospital of that city and Demonstrator of Microscopical Anatomy and Bacteriology in Tulane University.

Dr. R. A. Lancaster, of Gainesville, Fla.,

Has been elected President of the Alachua County Board of Health. Alachua is one of the most important counties in Florida, and is thus important to the country at large. The appointment is an excellent one, and gives great satisfaction to the profession in other States than Florida.

Professor A. R. Robinson, of New York,

Has been appointed by the Committee on organization of the International Congress of Dermatology and Syphilography to be held in Paris, to open the discussion on the subject of lichen.

Parties Knowing of Locations where Physicians are Wanted

Would do well to make such locations known to this office or through this journal. Worthy physicians, graduates of reputable Colleges, and holding certificates of qualification from the Medical Examining Board of Virginia, are continuously applying to this office for advice as to where to settle. All such parties, it is true, should join the Medical Society of Virginia and attend its annual sessions, where they meet with practitioners from every part of the State, of whom they can make personal inquiry. Every year we hear of many good locations being thus obtained. Let us learn to help the younger members of the profession to find suitable places to establish themselves. There are many practitioners of large practice who are allowing some of it to go to waste simply because of inability to attend to all of it. Why not secure the services of assistants, and do the friendly act of building up the young men? It becomes a part of professional duty to help the worthy young doctor to find a suitable place. Whenever an assistant is needed, or an opening occurs, keep the Secretary of the Medical Society of Virginia informed, so that he may inform the younger brother in search of such a place. *Help the young physician to get a start.*

The American Public Health Association

Will hold its 17th annual meeting in Brooklyn, N. Y., October 22–24. The Association comprises over 800 membere in all parts of the country. The added feature of the forthcoming session will be an exhibition of everything available adapted to the promotion of health and measures for its maintenance. Dr. A. N. Bell, of Brooklyn, is Chairman of the Exhibition Committee. Dr. J. H. Raymond, of Brooklyn, is chairman of the Executive Committee. Among the topics for consideration during the meeting are: Causes and prevention of infant mortality; railway and steamship sanitation; methods of scientific cooking; yellow fever; prevention and restriction of tuberculosis in man; methods of prevention of diphtheria, with results of such methods; compulsory vaccination, etc.

Drs. Chas. M. Shields, Louis C. Bosher and Christopher Tompkins

Of Richmond, Va., who have spent a vacation of some weeks in Europe, have returned to the city, much pleased with their trip, and have resumed their professional duties.

The Quarterly Compendium of Medical Science

Of Philadelphia, has suspended issue in order to concentrate work on the *Medical and Surgical Reporter*.

Medical and Surgical Register of the United States.

Messrs. R. L. Polk & Co., of Detroit, Mich., with offices in various other cities, are preparing a second edition of this valuable Register, which will show important improvements in each department. Subscription price $5; to non-subscribers, $7. Every doctor in the United States should at once forward to Messrs. Polk & Co., his name *in full*, post-office in full, including office address, if in a town or city, school of practice, college of graduation, and class year, in States where licenses have to be obtained through boards of examiners, state when examined, etc. If the party has moved since 1885, give former address. In other words, let each doctor contribute his mite of information to making this as nearly a perfect Register of the United States as possible.

Much Matter Prepared for this Number

Has been crowded out, although this number is 20 pages more than usual size.

Instantaneous Cure of Whooping-Cough.

In the *Archives of Pharmacy*, 1889, page 382, it is stated that the instantaneous cure of whooping-cough was attained by Dr. M. Mohn, as a result of accidentally observing that the disinfection of the sick room of the whooping-cough patient by sulphurous acid caused the disappearance of the paroxysms with a rapidity bordering on the marvelous. The patients are freshly clad in the morning, and placed in another room, in which they remain during the day. Meanwhile, 25 gm. of sulphur is burned in the sick room to each cm. of space; and after the bed-clothing, garments, etc., have been properly spread out, and the sulphurous acid has been permitted to permeate the air for five hours, the patients return to their disinfected sleeping-rooms in the evening, and are cured of whooping-cough.

Messrs, Parke, Davis & Co. supply sulphur bricks, which may be burned to secure the effects of sulphurous acid by inhalation, or for general disinfectant purposes. They supply as well a general line of disinfectants for household use, and will afford physicians all desired information concerning them on request.

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Original Communications.

Art. I.—Remarks on the Nature of Drink-Craving and its Management.

By ROBERT BIRD, M. D., of Cobham, Va.

Brigade Surgeon East Indian Army (retired).

Horvath* found that fingers immersed in cold alcohol for sometime were sensible to touch, but not to the prick of a pin. Here the molecular arrangement of the tissues had become so changed by the alcohol that the nerves were unable to transmit or originate that motion, which in consciousness we call pain. This molecular condition seems to be produced also in the nerve-tissues of a man when he is dead drunk, because then a man is temporarily paralyzed; his sensory nerves transmit no messages from without, and his motor nerves neither receive nor transmit messages from within. The sympathetic nerve resists, or seems to resist, the action of alcohol after the most of the cerebro-spinal system has succumbed, because the functions of organic life continue to be discharged when a man is unconscious from drink; while a portion, at least, of the medulla oblongata

* *Centralblatt, 1873.*

appears to enjoy a similar immunity, as the heart beats and respiration is carried on when the subject is in a deep, drunken stupor. But finally these yield also, and the patient dies.

From old habit, we still call alcohol a stimulant, although we know now that it reduces the temperature of the body in health as well as in disease. If it increases the temperature at all, it does so in the initial stage of its operation, when the alcoholic flush begins to suffuse the skin. The vaso-motor centre in the medulla is then being paralyzed, and a larger supply of oxygen-bearing blood is flowing through the capillaries. Later on, this blood contains more carbonic acid than is favorable to the production of animal heat through the oxidation of carbon and hydrogen within the body. Physiologists are now pretty well agreed that the action of alcohol on our bodies is less apt to produce animal heat, as taught by Liebig,* than to conserve nerve energy.

By this term we mean that it not only aids in the storage of nerve force, but in its economical distribution as vital energy to the different structures—a form of distribution in virtue of which the same amount of energy does twice the amount of work. When our ganglia are stored full, we feel strong and full of work; when they are empty, we are neurasthenic and good for nothing.

Still, from this we must not hastily conclude that alcohol is in every way a good thing, because its frequent or long-continued use defeats ultimately the purpose for which we take it. In time it changes the material of which our structures are woven or built up—rendering them fatty. When this transformation is accomplished, our ganglionic centres are no longer reliable storehouses and begin to leak. Then epilepsy and other irregularities in the distribution of our nerve energy are liable to appear.†

* Liebig taught that alcohol in the body is oxidized to produce animal heat, Bicker that it prevents oxidation. Perhaps a portion of it is oxidized, while the remainder, as alcohol, prevents oxidation. It certainly lessens the excretion of carbonic acid and urea, and ultimately reduces the animal temperature.

† Magnus Huss, of Sweeden, and Marcet, of London, are the leading authorities on these points.

So far as the cerebro-spinal system is concerned, alcohol, like woorara, acts centripetally from the periphery. At an early stage it seems to exercise its conservative function by lessening or cutting off communication between the organic and animal divisions of our bodies, most probably by paralyzing more or less the cords which link the sympathetic and cerebro-spinal systems together. In this way the sympathetic is left for a time to rule over its own domain, unchecked by interference from the cerebro-spinal system. Intercourse along the trophic nerves between the organic tissues and the cerebro-spinal centres is, then, interrupted or lessened, and the outgoing flow of nerve-energy called for in the supervision or modification of the nutritive processes of the body is diminished or altogether arrested, according to the degree of drunkenness.

The *immediate* effect of this interruption, partial or complete, in the flow of nerve-energy along the trophic nerves, is similar to what results when a current of water is arrested—there is a back eddy in the direction of the fountain-head and an accumulation there. The *remote* effect of this interruption, when drinking has become habitual, is that gradual metamorphosis of the tissues known as fatty degeneration.*

The sudden accumulation of energy in the cerebrum leads to a change in the behavior in most drinking men. The flow arrested in one direction sets in in another towards the muscles, and the man strikes, or he grows sentimental and sings, or intellectual and argumentative. Later on, however, when the action of the stuff is fully developed, the physiological sparkle dies out and is merged in the imbecile dullness of the sot.

To this action of alcohol now being sketched is mainly due the love which men have for it; for while cutting him off for a time from both the outside world and the vegetable half of his own body, it supplies him with a certain amount of spare energy with which he can shut himself up

* Alcoholic paralysis of a nerve frequently repeated, and paralysis induced by an accident, for instance, seem to have similar results—the tissues supplied by the nerve in either case degenerate.

in his own sensorium, to build castles in Spain, and for a time to feel "victorious over all the ills of life"*

Drink-craving, like hunger or ordinary thirst, is an appetite—that is, a desire for something which, at the time, is required to satisfy a corporeal want. The want, as is the case with all the other appetites, also originates in most, if not in all instances, in the nutritive processes, and comes into our consciousness along the trophic nerves; but the want itself, as a physiological entity, has its own special abode, located in the brain among the other appetites—hunger, lust, etc. Most probably this location is somewhere among or in the structures forming the mesocephalon. Dr. Laycock† affirms that all the trophic nerves lead into and are focussed in the gray matter of the cerebellum, where the various nutritive messages are sorted and labeled, and then transmitted to the cerebrum for further consideration and final orders. Here, with consent of the reason, or often against this, they seize control of the will and drive it to do that which they consider to be most conducive to their own satisfaction and gratification.

The physiological order, therefore, is as follows: (1) The nutritive processes impress the trophic nerves at their peripheral extremities; (2) these nerves, in the form of motion, transmit the impressions to the brain; where, (3) the impression creates in the gray matter a molecular disturbance, which in fact is essentially the appetite excited. The reaction on the general system, of this disturbance, is that general bodily uneasiness which gives the subject of it no rest until the appetite is indulged or destroyed.

The phrases, impression, transmission, molecular disturbance, being to most a little vague and indefinite in meaning, can be physiologically illustrated: Having gazed at the sun or a bright lamp for fifteen or twenty seconds, and then having closed our eyes, we see, on turning our observation to the back of our eye-ball, a beautiful colored spectrum,

* No doubt part of the exhilaration is due to the increase in the flow of blood through the brain, owing to the quickened action of the heart and temporary paralysis of the vaso-motor centre.

† *Mind and Brain*, Vol. II, Par. 1008.

rising and fading, rising and fading, with great regularity. Now, this colored spectrum, which we so distinctly recognize, is an impression originated in the retina by the action of light; and it is also a cerebral molecular disturbance, because the retinal structures, where the phenomenon is so beautifully manifested, is merely an outlying picket or portion of the brain. The molecular disturbances resulting from the afferent motion of the trophic nerves, which we name appetites, are not luminous and visible to our consciousness, as the retinal spectrum is, but in their nature and relations they are intrinsically the same. The origin and transference of an impression along a nerve receives illustration from the details of the following cases:

Case I.—"In a patient who had labored for some time under pain in the testicle, depending on a calculus passing down the ureter into the bladder, the testicle became tender and considerably swollen".*

Here local irritation produced the impression on the peripheral extremity of a nerve, which travelling as nerve motion to the spinal marrow, was reflected to a distant part to be there retransmuted into conditions resembling incipient inflammation.

Case II.—"A man was at Guy's Hospital several years ago, who, in consequence of fracture of the lower end of the radius, repaired by an excessive quantity of new bone, suffered compression of the median nerve. He had ulceration of the fore and middle fingers, which had resisted various treatments and was cured only by so binding the wrist, that the parts on the palmar arch being relaxed, the pressure on the nerve was removed. So long as this was done the ulcers became and remained well; but as soon as the man was allowed to use his hand, the pressure on the nerve was renewed, and the ulceration of the parts supplied by it returned."†

Change in molecular arrangements is a phrase which may also require some explanation. Sulphur assumes three forms—the crystalline, the viscous, and the amorphous. All of these have the same chemical constitu-

* Brodie *Local Nervous Affections*, p. 18.

† Paget's *Surgical Pathology Lecture.*

tion, and the difference between them is owing to differences in their molecular arrangement, which differences extend also to their properties, both physical and chemical. When a substance can be made to behave in this way, it is allotropic. A diamond transmits and reflects light, but graphite can do neither; yet these two substances in their constitution are chemically alike. Nerve tissue, like sulphur and phosphorus, is allotropic, but infinitely more so in the number of its variations. Arranged in one way, its particles can transmit a nerve motion; arranged in another, they cannot. Or the same form of arrangement may transmit one motion and arrest another, as happened in Horvath's experiment alluded to at the beginning of this paper.

When the natural appetites broaden out into excessive development, then they are diseased. Ordinary hunger becomes bulimia; ordinary sexual desire eroto- or nymphomania, while that normal appetite which urges men to partake of such beverages as light wines, beer, and tea, moderately, grows into drink-craving. The physiological becomes the pathological; and as the natural appetites are merely indications of certain conditions elsewhere, so the diseased appetites are to be taken as symptomatic of disease going on in some structure outside their own cerebral habitat. If ever the condition of drink-craving is purely idiopathic, then it is very rarely so. Some men hold that erotomania in some instances may appear idiopathically. If this opinion is correct, then probably, in rare instances, drink-craving may have an idiopathic origin also.

The diseased conditions of which drink-craving may be a symptom are more numerous and more varied in their nature and seats, than is suspected by many medical men. Salvatori,* was the first to give the condition its true standing; for he took it from among the moral diseases, and placed it among the physical—at the same time, claiming that like other diseases, it could be cured with material remedies. Anterior to his time, the disease had been re-

**Diss. in Commentationes Societatis Physico-Medicae Imosquensis*, ii 260. 1817. Translated in the *Medical Critic and Pathological Journal* for July, 1862, and Christison *Medico-Legal Relations of the Habit of Intemperance*, 1861, p. 20.

garded merely as a manifestation of the Devil, and its victim was oftener treated by the priest than by the physician.

In his paper read before the Physico-Medical Society, of Moscow, in December, 1817, Salvatori says, concerning "Ebriositas," "it can scarcely be doubted, therefore, that some fundamental infirmity lurks not in the mind but in the body, affecting the mind secondarily and inducing a true insanity. It is not easy to fix on the true seat and nature of this infirmity, but the symptoms and its causes point to a disordered state of the abdominal ganglionic system of nerves allied to that which causes in children the ravenous appetite, constituting the disease bulimia, and in adults, the wide spread disorders we are in the custom of calling hypochondriacal and hysterical." Tapeworm, he affirms, brought on the craving in nine of the fifty cases treated by him.

Hutcheson (*Report on the Glasgow Lunatic Asylum* for 184?,) says the condition may arise from hæmorrhage in the puerperal state, during recovery from fevers, in persons suffering from venereal excesses, in some forms of dyspepsia, in some cases of head injury, in females during pregnancy, at the catamenial periods, and at the critical periods and afterwards; and also in men whose brains are overworked. The chronic form of drink-craving—that is, the condition in those who live to get drunk—Dr. Hutcheson says, is caused by injuries to the head, heart affections, hereditary transmission, and continued intemperance.

In many particulars I am able to corroborate the statements of both Dr. Hutcheson and Salvatori. In the course of practice in a suburb of Calcutta, I met with many cases of drink-craving, traceable to a great variety of causes: to tapeworm, excessive hæmorrhage, dyspepsia, venereal excess, exhaustion from fever, exhaustion of diarrhœa, injuries of the head, (sunstroke), overwork, heart disease, (valvular insufficiency), retroversion of the womb with leucorrhœa, excessive menstruation, pregnancy, "change of life," and hereditary transmission. Very often infants and young children who are suffering from fever and diarrhœa in malarious districts, have a strong desire for alcohol, and, when

they have the chance, will drink it till they are quite drunk. Among operatives who pursue their work in badly ventilated rooms, drunkenness is always prevalent; indeed, it is so among all classes who spend much of their time in places where the atmosphere has a super-abundance of carbonic acid, and an insufficiency of oxygen. So circumstanced, men instinctively crave for alcohol. Is this so because alcohol lessens the out-turn of carbonic acid within the body? It must be a relief to anybody already oppressed by a super-abundance of carbonic acid to have the production of this substance among its tissues stopped or lessened. The journeymen tailors of London, and other London tradesmen, also continued to be immoderately drunken, till the poor law commissioners had their work rooms enlarged and ventilated, as also the general condition of the inmates improved. Subsequent to this, they grew to be comparatively sober. All underfed people, almost without exception, delight in alcohol. This fact is attributable to the action of alcohol in retarding and diminishing the waste of organized tissue. The French ouvrier drinks his bottle of wine because he knows from experience that his loaf by its help enables him to do twice as much work. All savages drink greedily when they have a chance, but then all savages are underfed and badly nourished.

Management.—Under this head I will first give a series of cases which mostly occurred in my own practice, and then add a few commentaries to make my meaning clearer, and to complete the paper.

Case I.—I. H., an infant, while suffering from malarious diarrhœa, showed an abiding desire for gin and brandy too. When she could get it, she would drink as much as ten or even twelve ounces a day. This amount made her happy, but never very drunk. It was her chief sustenance for some months, and under its influence the diarrhœa got well. The craving for drink disappeared with the disease. When I last heard of her, she was the sober mother of a family living with her husband in a village near Newcastle, England.

Case II.—H. R., a scrofulous boy of two years, while suffering from chronic dysentery, developed an insane appetite

for brandy. When this was first offered to him, he drank it greedily and screamed for more; and for weeks, brandy was his cry, his joy, and his support. Ultimately he got rid of his dysentery and drink-craving together.

Case III.—E. R., was the wife of a river steamboat captain. Her husband told me she "drank like a fish," and had been drinking so for years. She drank anything she could get, and when ordinary drink was not forthcoming, she would drink eau de cologne—surreptitiously purchased from Hindoo peddlers. As she also suffered from rheumatism of the womb and copious leucorrhœa, I had her removed to hospital for treatment. Cure of the womb affection in a great degree cured the drink-craving also, but not quite. Oxide of zinc, as recommended by Marcet, of London, and wild thyme, as recommended by Salvatori, combined with seclusion in an institution where she acted as sewing mistress, were required to complete the cure of this. She ultimately returned to her husband, reformed and thoroughly restored, nor did she in the subsequent years relapse, so far as I know.

Case IV.—M. W., when I first came to know her, was the mother of eight children. In her last confinement she lost a great deal of blood, and subsequently developed a mad wish for liquor, to the great grief of her husband, a steady mechanic. It turned out on inquiry that she had for years previously been in the habit of starving both herself and her children for purposes of economy. Iron, good food, and change to a more temperate climate in this case, cured the anæmia and the drink-craving too.

Case V.—J. E., a discharged soldier, employed on the East India Railway, got a sunstroke, and sometime after his recovery from this took to strong drink. In and out of his cups he finally became so offensive that his friends persuaded a sea captain to ship him as an ordinary seaman. He sailed several long voyages under the stern but kindly control of the ship's officers, and in about two years time returned to Calcutta a reformed man in his relations to drink. About this time, however, he began to get lean and finally fell into general atrophy and incipient imbecility. Without aim or purpose he wondered from place to place, a pensioner on the charity of Europeans and natives, but he never drank liquor, remaining quite temperate till his death some years later. The remedies in this case were oxide of zinc, sea air and control on board a teetotal ship.

Case VI.—A. A. had drank heavily previously to being

admitted into hospital for pityriasis. The skin complaint slowly declined and disappeared under a prolonged course of arsenic internally, and pitch externally. While convalescing he declined to drink beer, which had been prescribed, on the ground that it was distasteful to him, admitting, at the same time, that he had been a drunkard for years. He did not object to the beer on principle, but "the smell and taste made him sick." At the time I attributed this change in him to the accumulated action of the arsenic on his cerebro-spinal centres. A. A. remained a temperate man for many years, during which he was the faithful servant of a suburban municipality. Falling ultimately into chronic ill health, he was sent home to Europe via the Cape of Good Hope. On board ship he was seized with phthisis and died shortly after reaching England.

It is to be noted that phthisis is not at all uncommon among reformed drunkards, but whether the disease and the abstinence from alcohol stand towards each other in the relation of effect and cause I am unable to say.

Case VII.—H M. was a robust, rollicking fellow, very fond of good eating and liberal drinking. He was imaginative, intellectually quick, and all round a man of good parts. At the same time he was irascible, quarrelsome, and always ready to argue or fight. Daily he drank to excess, and frequently the excess became greater excess—when he drank furiously and with the straightforward intention of making himself dead drunk. In one of his penitent pauses, fully realizing that he was a drunkard, and the disgrace of being so, he resolved to free himself from the slavery into which he had fallen. He made over the business of his yard to his foreman and started for a water establishment in the island of Rothesay, Scotland. H. M. was a self-willed dogmatic man; but in the superintendent of this establishment he met a very determined man, who was more than his match. He was packed, exercised, fed, douched, and generally mastered, in a way which was more wholesome than agreeable. After six months of severe but kindly discipline, he returned to his work in Calcutta a sober, living, industrious man. Eighteen years after he fell a victim to wealth and society. Having accumulated a large fortune, he took to visiting, and entertaining, and finally lapsed into his former evil courses. After drinking hard for some months, he died of abscess in the liver. Drink-craving in this man was inherited.

A. A. was in a merchant's office in Calcutta and about 30 years old when he first began to show unmistakable signs of suffering from Magnus Huss' alcoholismus chronicus, brought on by long continued over indulgence in brandy and soda—pegging, as such drinking is called out there. He was a great society man, and moreover he suffered from mitral insufficiency, the result of a rheumatic attack which he had when a child. Probably these causes combined led to his intemperance. He never got drunk, but he was never quite sober. He now complained of formications, muscular weakness, loss of memory, sleeplessness, irregular pains in some parts of his body, and loss of feeling in others, dimness of eyesight, and occasionally subjective noises, hearing sounds unheard by others. Then his appetite had fallen off, and he had begun to lose flesh. Further, he was now not so truthful as formerly, while both his talk and his behaviour began to be a little gross. His tissues generally had suffered the alcoholic degradation; and as a consequence of this, the moral and intellectual part of him had deteriorated and decayed. His friends quite understood his case and were anxious to save him, but what could they do? The physical obstruction of fatty degeneration was there, a bar to speedy restoration to sobriety and health. Continued abstinence and immediate submission to sharp prescriptions, hygienic and otherwise, were indispensable, but how could these be enforced? Fortunately, about this time a party of relatives and friends were setting out on a tour through Palestine, Syria, Arabia and upper Egypt, and the patient was persuaded to join it. It was a teetotal party, and the ruling spirit in it was nearly related to W. A. and clearly understood what was required. In two years W. A. returned to his work in Calcutta a transformed man. His clear brown skin, his clear serene eye, his firm tread, his expressed sentiments and opinions indicated his complete restoration—morally, intellectually, and physically. In this case abstinence practiced in pleasant society, seclusion from drink under agreeable circumstances, the healthy exercise of continued travel, the restorative action of warm dry air, sunny skies and dry sandy countries; simple, wholesome food, coffee and tobacco and time, were the factors which worked out the cure.

Perhaps the pleasantest and surest cure for a *wealthy* case of alcoholismus chronicus would be a tour in the track of W. A. or of Lady Duff Gordon, or a long cruise on a teetotal

yacht, commanded by a resolute captain; or a judicious mixture, or alternation of these.

As cases of drink-craving are met with among the robust as well as among the sickly, we are apt to conclude, that the afferent as well as the efferent current along the trophic nerves excites in the cerebrum the particular molecular disturbances we are now considering. In the cases of diarrhœa, leucorrhœa and hæmorrhage such as I have outlined, it can scarcely be doubted that chemical analysis is in the ascendant among the tissues, and that the store-houses of the vital forces are being emptied. On the other hand, in the case of H. M. (No. VII), we are almost forced to conclude that the opposite to this was the case—that chemical synthesis prevailed and that the ganglionic store-houses were always full or in process of being filled. Yet the indications of this may have been fallacious. H. M. was fleshy and robust looking, but there was no wholesome repose about the man, no true economy in the use of his energies. His actions were so noisy, ill-considered, violent, and his general behaviour so full of muscular splutter as to ensure a great waste of energy in carrying on the daily business of his life. And so it may have been true that H. M., instead of having always at hand large stores of reserve energy to draw on, may have been living from hand to mouth as it were—that is, physiologically. In a great majority of instances, the presence of drink-craving indicates weakness and not strength of body; and in many, that actual disease is in existence somewhere among the organs and tissues.

I have now said enough to outline the condition of drink-craving and to show the wide range of its relations. It is essentially a corporeal disease, its moral symptoms being incidental only. Being so, it should be managed by the physician rather than by the priest. When medical men as a body have fully realized this and have entered vigorously on the rational and scientific treatment of this hitherto neglected portion of their domain, it will be seen that the influence of the prohibitionist, both politically and socially, has begun to decline, and that he himself, like the dodo, is about to become extinct.

Art. II.—Critical Observations on the Scientific Classification of the Forms of Insanity.

By JOSEPH JONES, M. D., of New Orleans, La.

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The following theoretical and practical observations relate to a subject of paramount importance in its medical and medico-legal relations :

Over one thousand cases of the various forms of insanity have come under the observation of the author, representing various races, different occupations and professions, and all the conditions of civilized life, from extreme ignorance to the highest intellectual and moral culture, and from abject poverty to abundant wealth.

It has been necessary to deal with insanity in all its various relations, including its physical and moral treatment and its legal protection and restraint. It has been necessary to consider on the one hand cases of *congenital insanity*, including all cases in which brain development has been arrested, with consequent impotentiality of development of the mental faculties, and on the other, cases of *acquired insanity*, including all cases in which the brain has been born healthy, but has suffered from morbid processes affecting it primarily, or from diseased states of the general system implicating it secondarily, or from traumatic injuries.

In endeavoring to classify the various forms of insanity we are met with difficulties, arising from the fact that the true nature and limits of insanity itself have been very imperfectly recognized. The essence of insanity is the manifestation of disease through some deviation from the healthy standard of mental action. It is a condition of mental unhealth analogous to bodily unhealth ; but there are no facts to show that there is a class of marked mental manifestations which are independent of the conditions of the physical frame. Mental action is not independent of physical conditions, and there is no pathological condition of the individual in which both mind and body are not affected, but in some diseases the mental symptoms come into promi-

nence, in others the physical; therefore it is not true that there is something in insanity altogether distinct from bodily disease. The study of insanity must be based upon the accurate and comprehensive study of cerebral pathology.

Proceeding on the broad view of the recognition of all mental symptons as phenomena whose nature cannot be ascertained without a full consideration of the physical symptoms of disease by which they may be accompanied, Schroeder Van der Kolk and others have endeavored to introduce a rational system of classification. Dr. Skae proposed a classification based on the belief that every mental disorder has a relation to some bodily disease, acute or chronic, analogous to what the delirium of fever does to the fever in whose course it is manifested. However imperfect the classification of insanity by Skae may be, it must be admitted, however, that he has given a most important impulse to the purely *medical*, as opposed to the metaphysical mode of studying insanity, and important progress has been made in the works on histology of insanity by Clouston, Batty Tuke, Robert Laundy, Luys and others.

It is by a careful record of all the mental and physical symptoms of the insane during life, and by accurate post-mortem examinations of all the organs, and more especially of the cerebro-spinal and sympathetic nervous systems after death, that we may finally be enabled to group together conditions that are similar, not only in their mental, but also in their physical characters, and obtain units which may ultimately contribute to the building up of a more perfect system.

In pursuing the study of the morbid histology of the brain and spinal cord, two methods of investigation have been recommended by pathologists: 1, the examination of the tissues in the fresh state; 2, the examining of the parts in *situ* by means of sections made after submission of portions of nervous tissue to hardening agents. The condition of the constituents of the recent brain can then be observed by coloring small specimens of sections with rosaniline and other coloring agents.

The modern method of freezing and section by means of the microtome, designed by Mr. Bevan Lewis, has rendered the investigation of histological brain changes a comparatively easy task.

CONGENITAL INSANITY.—*Idiocy.*—From the earliest ages the term *Amentia* has been applied to idiocy, in contradistinction to *Dementia*, the mental weakness following an acquired insanity.

Dr. Ireland, in his work on *Idiocy* and *Imbecility*, classifies idiots from the standpoint of pathology, as follows:

1. Genetous idiocy; in this form, which he holds to be complete before birth, he believes the presumption of heredity to be stronger than in other forms; the vitality of the general system is less than normal, the palate is vaulted and narrow, the teeth misshapen, wrongly placed and prone to decay, and the patient dwarfish in appearance; the head is generally unsymmetrical, and the commissures occasionally atrophied.

2. Microcephalic idiocy.

3. Eclampsic idiocy, due to the effects of infantile convulsions.

4. Epileptic idiocy.

5. Hydrocephalic idiocy, due to water on the brain.

6. Paralytic idiocy, a rare form, due to the brain injury causing the paralysis.

7. Traumatic idiocy, a form produced by the third class of causes above mentioned.

8. Inflammatory idiocy.

9. Idiocy by deprivation of one or more of the special senses.

Dr. Ireland subdivides idiots for the purpose of education, into five grades:

1st. Idiots who can neither speak nor understand speech.

2d. Idiots who can understand a few easy words.

3d. Idiots who can speak, who can be taught to work.

4th. Idiots who can be taught to read or write.

5th. Idiots who can read works for themselves.

CRETINISM.—Cretinism is a form of congenital insanity, inasmuch as the cretino-genetic miasma acts before birth.

It is endemic in many mountainous countries, and is said to occur most frequently in magnesian-limestone formations, but never at an elevation above 3,000 feet. Although all cretins have not goitre, and all goitrous persons are not cretins, there is a very intimate relationship between the two conditions.

Acquired Insanity.—Almost every writer on acquired insanity has suggested a special classification of the forms founded either upon the ætiology or symptomatology of the disease; and the numberless classifications founded on psychological considerations that have been advanced differ more in terminology than in principle, and when analyzed are reducible to the primitive forms of Hippocrates and Pinel, *mania, melancholia and dementia.*

Of the classifications based on symptoms none is simpler than Griesinger's: (1) States of mental depression. (2) States of mental exaltation. (3) States of mental weakness. Griesinger placed general paralysis and epilepsy apart as mere complications of insanity. His groups, therefore correspond broadly with the old divisions of melancholia, mania and dementia.

Pritchard asserted that mental symptoms were divisible into two great classes, according as the intellectual and moral faculties are implicated. This division is without scientific value, from the important fact that the primary symptoms in all insanities is the perversion of the moral sense, and that the perversion invades all cases of mental disease to their termination. The change of *morale* amounts to various degrees of perversion of the ordinary character and disposition of the individual. He becomes indifferent to social considerations, apathetic and neglectful of the personal and family duties, evinces dislike and suspicion of friends and relatives, and may betake himself to excess in alcoholic stimulants and other forms of dissipation. There is a general concentration of his ideas on himself, which is often spoken of as the selfishness of the insane.

Esquirol thus describes the conditions of insanity: (1) Melancholia, or, as he terms it, lypemania, disorder of the faculties with respect to one or a small number of objects,

with predominance of a sorrowful and despairing passion (2) Monomania, in which the disorder of the faculties is limited to one or a small number of objects, with excitement and predominance of a gay and expansive passion; (3) Mania, in which the insanity extends to all kinds of objects, and is accompanied by excitement; (4) Dementia, in which the insensate utter folly, because the organs of thought have lost their energy and the strength requisite for their functions.

In 1852, Schroeder Van der Kolk, and in 1860, Morel laid the foundation of a classification more in accordance with pathological science.

Schroeder Van der Kolk included the different forms of the disease under two great classes: "*Idiopathic insanity*," comprising all cases produced by primary affections of the brain; and "*Sympathetic insanity*," including those due to morbid conditions of the general system.

Morel divides the insanities into six groups:

1. *Hereditary* insanity, including congenital nervous temperament, moral and impulsive insanity and idiocy.
2. *Toxic* insanity, including conditions caused by insufficient or injurious food, poisons, or noxious air or water.
3. *Hysterical*, *epileptic* and *hypochondriacal* insanity.
4. *Idiopathic* insanity, depending upon the disease of the brain; or its membranes.
5. *Sympathetic* insanity.
6. *Dementia*, or the condition of terminative enfeeblement.

Dr. J. Batty Tuke, adopts the following system, based upon the propositions of Schroeder Van der Kolk and Morel, which marked a great advance in the study of insanity:

1. Idiopathic insanity.
   - Idiopathic mania.
   - Melancholia and dementia.
   - General paralysis of the insane.
2. Traumatic insanity.
3. The insanities associated with other neuroses.
   - Epileptic insanity.
   - Hysterical insanity.
   - Hypochondrical insanity.
4. Insanity resulting from the presence of adventitious products.

5. Insanities resulting from morbid conditions of the general system.	Phthisical insanity. Rheumatic insanity. Gouty insanity. Syphilitic insanity. Insanity from sunstroke. Anæmic insanity.
6. Insanities occurring at evolutional periods.	Insanity of pubescence and adolescence. Climacteric insanity. Senile insanity. Insanity of pregnancy. Puerperal insanity.
7. Toxic insanity.	

The classification of the insanities according to the predominant mental symptoms has been adopted by many writers. Thus Krafft-Ebing gives the following classification:

A. *Physical diseases of the developed brain.*

I. Psycho-neuroses.

(1) Primary, curable states:

(a) Melancholia simplex; (b) Melancholia attonita; (c) Mania; (d) Maniacal exaltation; (e) Acute delirious mania; (f) Stupor; (g) Hallucinatory delirium.

(2) Secondary, incurable states:

(a) Secondary monomania; (b) Terminal dementia; (c) Dementia agitata; (d) Dementia apathetica.

II. Physical degenerative states:

(a) Constitutional affective insanity; (b) Moral insanity; (c) Primary monomania; (d) Insanity with compulsory representations; (e) Insanity from constitutional neuroses; (f) Periodical insanity.

III. Brain diseases with predominant psychical disturbances:

(a) Dementia paralytica; (b) Lues cerebralis; (c) Alcoholismus chronicus; (d) Dementia senilis; (e) Delirium acutum.

B. *Arrests of physical development.*

(a) Idiocy; (b) Cretinism.

In the recent elaborate classification of insanity, proposed by Dr. Theodore H. Kellogg, we have two groups. A. Somato-etiological; B. Psycho-symptomatological.

The first group is divided into six classes, and these are

sub-divided into nineteen orders. The fifth class, which includes two orders, is further sub-divided into thirteen genera. The seventh class, which includes two orders, is sub-divided into six genera

The second group is divided into three classes, and sub-divided into six orders, ten genera and seventeen sub-divisions or species.

In brief, his classification presents the various forms of insanity under the divisions of two groups, *nine* classes, *twenty-five* orders and *thirty-six* genera.

The confusion which would ensue from the adoption of such a cumbrous classification is shown by the following facts:

(*a*) The terms group, class, order and genera are not used in the method used in natural history classifications.

(*b*) Under the head of the second class, such indefinite terms as *instinctive insanity of childhood, primary monomania, moral insanity, and periodic* insanity are erected each into distinct orders.

(*c*) Under the head of class V. "*General systemic morbid states:*" order 1, "*Toxic,*" includes four genera, namely: 1, Alcoholism; 2, Morphinism; 3, Plumbism; 4, Hydrargyrism.

If such a complicated system of classification be adopted the genera might be indefinitely extended to tobaccoism, cocainism, chloroformism, choralism, absynthism, and to all poisonous drugs and agents which are capable of inducing structural alterations or chronic perversions of the functional operations of the cerebro-spinal system.

(*d*) Under the second order of the fifth class, *Diathetic,* we find nine genera, and note: 1, Phthisical; 2, Podagrous; 3, Rheumatic; 4, Pellagrous; 5, Limopsoitosic; 6, Malarious; 7, Anæmic; 8, *Post Febrile;* 9, Myxœdematous. If malaria causes a genus of insanity, how many species may be included under this head, and if such a system of classification be admitted, why should not a genus of insanity be made for each and every febrile poison, as typhus, typhoid, yellow, scarlatina, and variola? It is unnecessary to pursue this analysis further.

From the facts presented, it is evident that the classification of the insanities according to the predominant mental symptoms is neither so scientific nor so convenient as a classification based on pathology.

Dr. J. Batty Tuke has well observed that: Mania, melancholia and dementia are merely symptoms of brain disease; if these symptoms were constant in even a considerable majority of all cases, there would be better warrant for employing them as a basis of nosology; but they vary so widely in kind and degree, they run so closely one into another, they may all appear in an individual case within so very short a space of time that their use is generally misleading, even as indicating the mental condition of a patient. In many cases of insanity, mania may present itself to-day, malancholia to-morrow, and dementia the day after, being, in fact, indications of the course of the complaint. It is undoubtedly true that in a proportion of the insane there is a general predominance of one or the other of these conditions, but it is equally true that there is an equal proportion to which the application of any one of these terms is open to question. Thus we may have a melancholic mania or a maniacal melancholia. Moreover, there are many forms of insanity of which the connection with the causation is so intimate that even those authors who adhere to the archaic classification cannot refuse to acknowledge them as pathological classes, and are compelled to treat of them under their pathological designations. Puerperal insanity, epileptic insanity, senile insanity, and general paralysis, may be cited as prominent examples. To say of a man that he is maniacal is not saying more than to say of one who has lost the power of one of his limbs that he suffers from palsy, a diagnosis which no scientific physician of the present day would be content with, as it conveys no definite idea as to the pathological character or cause of impairment of mobility.

It is evident, from the preceding facts and observations, that *medical science is not yet able to base a nosology of the insanities on the highest pathological platform, that of morbid anatomy.*

Art. III.—Clinical Morphology versus Bacteriology, with Some Therapeutic Deductions.*

By JOHN ASHBURTON CUTTER, M. D., B. S., of New York City.

The following is an abstract:

What is clinical morphology? Morphology is the science of form. Clinical morphology covers the form elements that the clinician sees in his daily work with his patients; the position in bed; the lines of the face; the attitude assumed in walking and sitting—all come under the term Clinical Morphology. But for our purpose to-day we will consider clinical morphology to be the description of the form elements found in the blood, the urine, the sputum, the skin, the fæces and foods.

What is bacteriology? The science of bacteria. What are bacteria? Very small bodies which are hard to place. They have been classified under the heading of schizomycetes of the confervoid algæ. A good definition of algæ is, that they are plants that produce oxygen; and of fungi, that they produce carbonic acid gas.

We proceed to the concrete side of our subject, and will consider briefly the *much advertised infants' foods, asthma, rheumatism, and tuberculosis.*

Infants' Foods. It will go without saying that bacteriology has little field of work in the artificial infants' foods. Yet the opportunities offered for clinical morphological investigations are great and of much importance.

Take, for instance, "Imperial Granum;" the author of the *Clinical Morphologies*, showed, years ago, that, though the claims of the manufacturers were that this preparation was "amorphous, a solid extract, the salvator of the human race," etc., etc., it was decidedly morphological, containing starch grains, to say no more, and the Connecticut Agricultural Experiment Station has backed up the statement of the morphologist by chemical examinations which show that "Imperial Granum" is common flour.

* Read before the Mississippi Valley Medical Association at its Fifteenth Annual Meeting September 11th, 1889, and illustrated by Lantern Slides of Microphotographs, taken with the ¼, $\frac{1}{10}$, $\frac{1}{16}$, $\frac{1}{30}$, and $\frac{1}{75}$-inch objectives.

Any physician who has an infant food sent him for an examination should place the food under the microscope, study for gluten cells, starch cells, cellulose, the connective tissues of the various grains; see if it is an amorphous, homogeneous mass made up of decidedly morphological elements. A food may be a first-class one chemically, and yet contain so much cellulose that it is unfit for the stomach. The paper published in 1882 in *Gaillard's Medical Journal*, on Cereal Foods, by E. Cutter, illustrated by cuts of micrographical drawings, created much attention as being the first to enter a new field as to foods, to-wit: the morphological; *chemistry and clinical morphology should go together.*

The therapeutic deduction is: Feed the mothers during gestation and lactation on such foods that they will have milk enough to nurse their children, summer or winter. Our plan is, two-thirds animal and one-third vegetable, with one meat and one vegetable at a meal.

Morphology of the Sputum in Asthma.—The following in quotations is from the work entitled, "The Clinical Morphologies," by Ephraim Cutter, M. D., LL. D., published by the author, New York:

"Cholesterin; "Cystin; "Oxalate of lime; "Phosphate of lime; "Triple phosphates; "Uric acid and water; "Calculi made up of these salts; "Contents of giant cells escaped outside of walls; "Crystals with two or more terminals; "Foreign substances inhaled; "Fusiform crystals; "Gravel crystaline, Gravel granular, Gravel massive; "Mucous corpuscles distended with albuminoids; with crystalline and other bodies; with cystin; with giant cells; with melanotic matters; with oxalate of lime; with triple phosphates; with uric acid and urates; "Other crystals whose names have not been made out; "Spirilina splendens. Salisbury, 1868."

The therapeutical indication from this morphology in asthma is to feed the cases so that there will be the minimum of fermentation, and thus stop the paralyzing action of the carbonic acid, etc., on the eliminative glands; give tonic and liquifying medicines; and if the case is watched

closely, and will follow the orders to the letter, a cure may be expected in time.

It hardly needs to be said that bacteriology is far behind clinical morphology because it can only treat of bacteria; yet clinical morphology is able to show physical causes of asthma and hay fever.

The Morphology of the Blood—Mode of Study.—It is necessary to have the patient, the microscope, the light, the means of withdrawal of the blood—a lancet, spring lancet, the scarificator of the writer (E. Cutter), or a needle, which is not the best thing—all together.

There is no such thing as taking the blood home to examine. The changes are so rapid that most of the important ones disappear in ten minutes' time. Still, after these are gone, many valuable points remain to be looked for.

Kind of Blood. The capillary—not the venous or arterial.

Site of Withdrawal. On the radial or ulnar side of the forearm, near the wrist. The skin should be clean and free from hair. If dirty, wash with soapsuds or ammonia water. (It is well that the beginner should study the skin surface, dirt, and epithelium, before looking at the blood.) Take the patient's forearm in the hand, and make the skin tense in the interval between the thumb and fore-finger. Puncture the skin one-eighth inch. The tension of the grip will squeeze out a drop of blood. The size of the drop should bear a direct relation to the size of the cover. Very much depends on handling the drop of blood rightly. When the drop evenly diffuses itself, it is to be presumed that the film is about uniform in thickness, so that one can judge somewhat as to the comparative number of corpuscles in each specimen. The process of transferring the blood should take only a few seconds of time; a fraction should be sufficient.

Morphology of the Blood in Health.—Color: bright, fresh, clear, ruddy, strong.

Clotting: rapid and firm.

Red Corpuscles. Arrange themselves in numulations, or are scattered evenly over the field. Normal in size. Non-

adhesive. Central depression well marked on both sides; periphery well-rounded, clean cut. Hold coloring matter firmly. Pass readily to and fro through the fibrin filaments; appear fresh and fair.

White Corpuscles. Normal in size. Not enlarged by internal collection of foreign bodies. Amœboid movements; strong or not. Proportion, one to three hundred of red corpuscles; consistence good; not sticky; color, a clean white; freely moving at will.

Serum. Clear and free at sight from any form. After five minutes, most delicate semi-transparent fibrin filaments appear, forming a very light network in the field, which offers no obstacle to the passage of the corpuscles.

There should be no spores nor vegetations in healthy serum, though they may be found by very minute examination, or by letting the blood stand for several days in closely stopped phials at a temperature of from 60–75 degrees Fahrenheit. This is not saying that spores and filaments cannot be found in blood of persons calling themselves healthy —for some diseases exist in a latent condition, like *rheumatism, syphilis, cystinæmia and consumption.* I have met with people who, on finding vegetations in their blood, have decided not to accept the evidence because they deemed themselves healthy. Again, it is difficult to find a perfectly healthy person in the community; this was made public during the 'late unpleasantness,' when drafts were made for soldiers. The blood-evidence must be taken in connection with that of other physical signs.

Morphology of the Blood in Rheumatism.—The red corpuscles are sticky, forming large masses; this is due to the excessive development of the fibrin filaments which form a strong network across the field and render the blood molas ses-like. The white corpuscles are distended more or less with the crystalline matters present.

In the serum interspaces, besides the fibrin filaments in excess, are found the following crystalline bodies: Uric acid and urates; phosphates, specially the triple phosphates of lime and soda; oxalate of lime; cystin, quite common and easily detected; carbonate of lime, rare; stelline and stellu-

rine, these occurring mostly in granular form; but in old cases where the system is saturated, they are crystalline; black, brown, aniline blue, bronze, red and yellow pigments in the form of flakes or small masses are common in rheumatic blood.

(Readers of this abstract will find this morphology described to a much greater extent in the Clinical Morphologies.)

Latent Conditions of the Characteristics of Rheumatic Blood. The morphology of rheumatic blood exists in a latent condition in persons apparently well; but when they are exposed to cold, the blood-vessels contract, catch and detain these abnormal elements, and we have a stasis of the blood which may be active or passive and manifests itself in heat, fever, pain, swelling, inflammation, or passive congestion, effusion, etc., and which make up what is known as an 'attack of rheumatism.'

Fibræmia is where the fibrin is in excess in filaments, skeins, curled massive fibres like strings—thrombi and emboli. These are in a more exaggerated condition and form than in consumption or rheumatism, and are not necessarily associated with the crystalline matters or gravel. Sometimes the fibres look like a scalp that has been taken from the head of a woman with long tresses of hair.

Thrombosis is where masses of fibrin accrete and consolidate together, including or not the red corpuscles, white corpuscles, crystalline and pigmentary bodies, spores and mycelial filaments or vegetations, one or all.

Embolism is where a thrombus has been caught or engaged a blood-vessel, and acts as a plug, disturbing the circulation.

Pre-embolic State. As thrombi precede emboli, so they can be detected in the blood before the embolism, simply by the morphology of the blood. In this way, sudden deaths from embolism, specially in the puerperal state, can be averted.

Here again we have a subject which bacteriology cannot touch, as the morphology of the blood in rheumatism shows the causes of the inflammation, pain and deposits to be pure-

ly physical and chemical. Beef has had many sins that other foods should have borne the complaint of, laid at its door. Stop the Englishman from eating puddings, pastry and sweet, and feed him on beef rightly prepared, and I think he will have less gout. The morphology of the blood in these old cases of gout is very interesting and beautiful. One case I examined several years ago had a most remarkable display of crystals of cystine.

To treat rheumatism, one must be patient. Sometimes the cases have to go on very rigid diet; nothing but the beef separated from its fibrin, and the resultant pulp broiled. *I wish to say here, that we never prescribe beef raw, never did and never will.*

Morphology of the Blood in Tuberculosis.—First or Incubative Stage. Red corpuscles are less in number; ropy and sticky, more or less, but not much changed otherwise.

Second Stage of Transmission. Red corpuscles; color pale, non-lustrous; not clear cut, not ruddy. Consistence, sticky, adhesive; coating of neurine removed; not so numerous as in normal blood. Owing to the increased size and strength of the fibrin filaments and the stickiness, they form in ridges, rows, but not so marked as in rheumatic blood. They accumulate in aggregations of confused masses like droves of frightened sheep. They adhere to each other and are rotten, as it were, in texture.

White Corpuscles. Enlarged and distended by the mycoderma aceti or spores of vinegar yeast, that are transmitted into the blood-stream from the intestines.

Serum. More or less filled with the spores of mycoderma aceti or vinegar yeast. These occur either singly or in masses of spores, which is the common form in which they are found, wherever vinegar is produced.

The Fibrin Filaments. Are larger, stronger, more massive than in health, and form, under the microscope, a thick network which is larger, stronger, and more marked in direct proportion to the severity of the disease or the amount of accumulation.

Besides, the serum is apt to be of a dirty, ash color.

The sticky white corpuscles, the massive fibrin filaments

in skeins, and the yeast spores alone or combined, form aggregations, collects, thrombi and emboli, which block up the blood-vessels of the lungs soonest, because exposed to cold air, the most of any viscus; *the blood-vessels contract, and thus arrest the thrombi and form a heterologous deposit, which is called tubercle.*

The Third Stage or Stage of Tubercular Deposit. These deposits increase so long as vitality subsists in the tubercle and surroundings. When vitality ceases, the tubercle softens or breaks down. Sometimes, if the process is very slow and life slightly inheres in it, the proximate tissues undergo fatty infiltration, which preserves it from readily breaking down.

The morphology of the blood is the same for the second and third stages of consumption.

Fourth Stage, or Interstitial Death. Morphology of the blood in this stage is the same as in the second and third, save that it becomes more impoverished.

The Red Corpuscles are thinner, paler, much lessened in number; increased in adhesiveness, stickiness, and poverty. Devoid more or less of neurine.

The White Corpuscles are fewer in number; more enlarged; often ragged and rough. Distended with spores of mycoderma aceti; more adhesive and sticky.

The Serum. Fibrin filaments are thickened, stronger, more massive, and more skeins of them present. The collects of mycoderma aceti are very much larger and more numerous; in moribund cases, I have seen them so large as almost to fill the field of the microscope. They present anfractuous edges and amœboid prolongations, giving them a weird, bizarre appearance, which, under the circumstances, have a portentous aspect, for the larger and more numerous the spore-collects of mycoderma aceti are, the more dangerous the case.

The Morphology of the Blood in Fibrous Consumption.— Here the mycodema aceti or vinegar yeast does not get into the blood and change as in tubercular consumption, since the pylorus keeps the vinegar yeast in the stomach. There is breaking down of living tissue to a less extent.

This tissue has been thickened, hardened, and made stony from deposit of gravel. The diagnosis is not so easy as that of tubercular consumption.

It is wonderful to see in these cases how soon the cough begins to lessen, due to the stopping of the production of the carbonic acid gas, which by its paralyzing action on the mucous membranes of the trachea and the lungs, has caused that pouring out of mucous. I would that I had more time to go into the description of the rationale of the production of these diseased conditions in rheumatism, astlma and consumption, tubercular and fibrous.

The Morphology of the Sputum in Tuberculoses.—Bacilli, bacteria, so-called, clots of blood, elastic lung fibers, epithelia, ciliate, non-ciliate, pavement and columnar, granular and tubercular matter, granular tuberculous matter, so-called, sometimes fetid in odor, inelastic lung fibres, lumina of blood vessels, mucous corpuscles, normal, deformed, distended with spores and gravelly matters; mucous filaments and fibers, mycelial filaments, swarms of spores, yeast plants, and yeast sporangia, alcoholic and lactic acid.

Comparison of Clinical Morphology and Bacteriology as to Tuberculosis. Etiology.—The bacteriologist claims that the tubercle bacillus, as discovered by Koch, is the cause of tuberculosis. The clinical morphologist asserts that the vinegar yeast spores in the blood is the cause of tuberculosis by their chemical and mechanical action on lung tissues.

The bacteriologist has strong evidence in the fact of inoculation. The clinical morphologist, in that by methods based on the morphology of blood containing vinegar yeast, many cases of tuberculosis have been cured. How can these two claims be reconciled? For over thirty years botanists have been fighting about Koch's bacillus; some claimed that it was part of the life growth of the vinegar yeast plant; others, that it was not. The former hold the stronger position, for Koch's experiments have demonstrated that the bacillus will propagate as itself; now here comes in the link.

The bacteriologist is hard at work to find out how that bacillus gets into the lungs, and is laying down rules of pre-

ventive treatment, which are in some cases fantastic and ridiculous. The clinical morphologist is able to diagnosticate the vinegar yeast in the blood before the lungs break down; he finds the morphology getting more desperate as the case grows worse; and as the case improves under treatment, he finds that the morphology of the blood improves. Moreover, the clinical morphologist not being limited to the study of bacteria as the bacteriologist is, (if he works on the bacteriology alone) can develop from the sputum the full fledged vegetation from bacillus through the spore stage to the mycelial.

Now, if what I say is true, then tuberculosis is a disease induced by the excessive feeding of fermenting food, or food that will ferment into alcohol and vinegar. The villi of the intestines, paralyzed by this fermentation, absorb the spores of vinegar yeast which gradually increase in the blood, and if not detected in time, will cause tubercle; oftentimes a cold, overwork, and worry, will be the blow that upsets the case.

Now, when the lung tissues begin to necrose and cough comes on, of course the sputum will contain the tubercle bacillus; *also the spores of vinegar yeast.*

My father's experience, which runs back over thirty-three years, shows that children of tuberculous parents, will, by feeding on proper food, grow up instead of die.

Men say to me that they examine blood and can tell nothing about it. I answer that my father thought it necessary that I spend eight years study in the sciences and medicine before he would teach me *how to study clinical morphology.* The same rule applies in his instruction to others, for he will teach only medical graduates, amongst whom, I may note Dr. R. J. Nunn, Ex-President Medical Association of Georgia; Dr. Nunn travelled in Europe, and could not find what he wanted till he returned to New York.

Therapeutics.—In 1881, a young man lay sick in bed of emaciation, so great that he is about a skeleton; of hemoptyses, so frequent that counting them has ceased; of night sweats; of copious expectoration which contains elastic and

inelastic lung fibers; the heart is enlarged; the pulse 120; respiration twenty and more times a minute; in both lungs are cavities; the blood presents the tuberculosis morphology. Now, this case, desperate as it was, was undertaken by my father; the patient was fed on beef taken from the top of the round; from it was separted by machines the fibrous tissues; the resultant pulp was moulded carefully into cakes and broiled; great care was taken in all of the steps of the process of preparing the beef; the hands touched it as little as possible, for even after the pulp has been separated from the fibrous tissues, if touched by the hand, the human animal heat will be apt to change the condition of the meat; so it is moulded carefully with knife and fork. The meat is then broiled and seasoned to taste with pepper, butter, lemon juice, and salt as wanted, Worcestershire sauce allowed. The patient is fed this three times a day. Is given gentle tonics; is bathed twice a day with ammonia or acid sponge baths; the case has to be very carefully watched, for life is apt to slip away at any moment. He gradually improves and is cured, *i. e., the cough ceases, the sweats are gone, he arises from his bed, goes through college, is graduated with honors, is married, and was last seen by us one year ago and calls himself a well man.*

Now, what is the rationale of this cure? By feeding him this particular food, the vinegar yeast was starved out of the blood and thus its work of necrosing lung tissue was stopped; the acidity of the blood taken away by stopping the acetic acid fermentation, the fibrin filaments lose their large size, the red blood corpuscles regain their normal tone and color, they are no longer huddled together, and the white corpuscles come down to normal size because the blood has been deprived of the spores of vinegar yeast, which they have been trying to enclose. Now nature is a spiral spring, and in this case has been overloaded with wrong feeding; we have given her a chance by feeding the patient on the food that best agrees with her, and she, being furnished with good blood, her eliminative glands in good condition, takes the normal blood and with her wonderful physiological means, heals over the sore and broken down places in the

lungs, and in some cases, if the cavities are not too large, will build and bridge them over. I believe this to be true, for I have been with a case where I could hear the air bubbling through the mucus in a small cavity, and yet, that all disappeared.

There is so much said about the non-curability of consumption. My father was nearly ostracised when he came out in 1880 with seventy cases published in the Transactions of the American Medical Association; here he simply claimed that consumption was a curable disease; his cases in this table were, seventeen non-arrests, twenty-six partial arrests, and twenty-seven permanent arrests. It is perhaps well to note that this was all before Koch promulgated the tubercle bacillus, and with this article were printed microphotographs of tuberculous blood.

Now, it is reported, that in the morgues of the great cities of the world, like Paris and New York, bodies are cut into, in which are evidences of lung necrosis which had been stayed; the lungs healed or scarred and the individuals are dead of something else. Moreover, surgeons are talking of removing by pneumectomy untold portions of the lungs, and in a journal I recently saw, that a man could live with but two lobes. Well, supposing the patient has survived the shock of slicing out a part or whole of one lung, he will continue to live on his food that produces tubercle. These facts apply to tuberculosis of the joints and the peritoneum as well. In a case of tuberculosis of the knee joints, I found the morphology of the blood to be tuberculosis and syphilitic. Gentlemen, the medical, the thophologic side of these questions must be examined as well as the surgical.

In our work, we never say we are going to cure a case, for we recognize the fact that we are human, finite; but we do know that cases have been cured, and so we will not take away a sufferer's hope. We never know how a case is going to turn out; some cases will not respond to the treatment, for they are just full of the disease, both lungs; but others come along that appear just as desperate, and we give them a chance, and they pull up and get well.

I had a case in Kentucky; we healed her lungs several times and would send her home and there she would get upset. Once she had to go into the kitchen and cook; this brought on an attack of meningitis which shattered her nervous system so that her character was changed from that of a bright, happy woman, to one despondent, nervous, irritable. Yet she lived over for a year after that meningitis, though I was constantly told that she would die; for seven months before her death, she never coughed; I took her to her family physician before her death and he admitted that her lung was healed. She died two months later, incidentally from malaria; generally, from adynamia.

Gentlemen, it takes nerve force to live, it takes nerve force to get well. Each time that this woman's lung broke down, she had to use nerve force to recover; if she had not been shattered by the meningitis, humanly speaking, she would be alive now. (See "On the Death of a Cured Case of Tuberculosis Pulmonalis, J. A. Cutter, *Virginia Medical Monthly*, Pictorial, Sept. 1889.)

I might give you the details of many more cases of tubercle, but time does not permit; suffice it that I say that the cured cases run back into the sixties, that we consider tuberculosis curable, and our hope is that as soon as the profession and the laiety will share this belief and practice to cure, then many more lives will be saved.

This taking away of hope kills many. How can a man live if there is no hope offered him; if he does, it is by sheer pluck and fight. But the fight which my father started in on years ago to prove that consumption is a curable disease, seems to be about over. We are entering on a new era in medicine; nutrition of tissues must be studied, the causes of tumors, the excessive development of the fibrous tissues, the causes of degenerations—all these must be studied from the side of nutrition.

A few words as to *food in tuberculosis.* The yolks of eggs are not allowed in any form, because hard to digest and a promoter of rheumatism; if you do not believe it, try them on a case and see the result. Milk is commonly called the best of foods, yet in the adult, nine times out of ten, it is

not the best, as it so often causes biliousness; this we see in studying our cases; testing the urine with nitric acid helps very much to show the biliousness; milk if given to patients must be taken warm from the cow, and be carried to the patient speedily, so that the ever present germs may not get into and contaminate it. But be careful in its administration. I have seen cases that I thought could take milk be upset by it.

Some cases are kept alive on the whites of eggs, slightly cooked; beef tea, and extract of beef. Sometimes the stomach is in such a condition that the patient has to be sustained by the nourishment per rectum till the stomach comes around. But the aim in our cases is to get the stomach in such a condition, that they can be fed beef prepared as beforehand described. When the blood becomes normal, the urine flowing with a specific gravity of 1015 to 1020 with no bile, and no sediment, then other foods can be brought in cautiously; and it is only necessary for me to say, that if you are watching the case carefully, you will soon find out whether the food you are allowing is the best or not. Again, time is a great consideration with these cases. They must be treated by the month, pay their fee in advance, must go under your care for at least one year, better two; the specimens of blood, urine, feces and sputum often examined. Have the patient put his hand in yours and trust you faithfully; make him stop introspection and watch to see that causes of worry are removed. Temperament needs consideration; some cases need much encouragement, others holding back; some are fearful of everybody and everything, and have no faith; others expect to get well right off, and go at the treatment with a rush, and when they find that nature takes her own time in healing his sins, he may be disappointed.

It is no easy thing to take a case chronically sick and lead him along to health. Again, while remembering that without proper feeding we cannot cure your case, do not forget that with judicious medication the case may be pushed along faster, for the machine needs oiling. Have the case drink hot water one hour before meals and on retiring; usu-

ally a pint is needed at each draught, the temperature not boiling but comfortably warm. (See the "Therapeutical Drinking of Hot Water," by E. Cutter—New York: W. A. Kellogg.) Do not give them any medicine that is made up with syrup. I have been asked so many times, "Do you give syrup of hypophosphites?" The answer, "No, because there is fermentable matter in it.

In closing, gentlemen, I call your earnest attention to the need of large bodies of medical men who are deeply anxious for the truth, investigating the original experiments of Salisbury which were made on men and animals thirty years ago. *Our work* has been more with micro-photography and demonstrations of healthy and diseased morphologists. We have not had the time nor money, to hire men to eat certain kinds of foods singly, and study the effects on them, neither to buy hogs and feed them to death on distillery slop. But all this must be done, and if this Association with the personnel of scientific men, industrious and anxious for therapeutic achievements, will appoint a commission and investigate these matters thoroughly, a great good will be conferred.

We must know the truth! These matters ought not to rest on the utterances of one or two men. While I am satisfied as far as I have gone in the matter, and believe my father to be on the right track in his efforts to save these things to *the profession*, (for the profession is the body that stands between the people and death, and no man should set himself as a healer, and that he must hold all knowledge), I am also deeply anxious that these experiments be repeated.

A commission to undertake this work must be composed of your most eminent members; it should contain a first-class chemist, a neurologist, a pathologist, a therapeutist, and last, but not least, a morphologist. The work of the commission must not be hampered by the appointment of a man to do its microscopical work, who is trained only in bacteriology. I believe I have shown you that bacteriology is but an extremely small portion of the micrological world and that the profession will be handicapped until the word ceases to exist and the bacteriologist of to-day becomes morphologists in order that they may cover the whole field.

The Ariston, Broadway and Fifty-fifth St.,

ART. IV.—**The Microscope in Medicine. Practical Directions for the General Practitioner, as to Selection of Microscope, Staining and Mounting of Specimens, etc.**

By CHARLES M. BLACKFORD, M. D., of New York, N. Y.

In the brief space allowed for a single article in this journal, it is impossible to go into the subject of microscopy as fully as one would wish, and it becomes necessary to select those portions of the work in which the ordinary practitioner, as distinguished from the pathological and histological specialists, may readily become expert. The writer would be glad to go into the history of microscopic investigations and recapitulate, at least, the services these investitions have rendered; but as the scope of the present paper is merely to describe the mode of prosecuting such studies, that record must be omitted.

The first requisite is a microscope. These exist in varying styles, and at various prices. A good stand should have a base sufficiently broad and heavy to hold the instrument firmly on the table, and need not be very high. The older stands were very high, so tall indeed as to require a very low table for their comfortable use. Those made by our modern makers are much lower, and are as rigid or even more so than the older ones. It should have both a coarse and a fine adjustment screw, though if either of these are to be left off, it should be the coarse adjustment. It is very possible to focus roughly by a sliding tube, but fine adjustment by this means is out of the question. Let the fine screw act on the *tube* and not on the stage, as the object is sure to be displaced by the movement of the stage. This is mentioned because of the writer's experience with an instrument whose fine adjustment bears on the stage and the annoyance and disappointments arising therefrom. The space between the mirror and stage should be sufficient to allow of an Abbé condenser being placed between them. Some makers put the mirror on a swinging bar, so that it may be raised above the stage, and the object viewed by reflected as

well as by transmitted light. It is conceivable that this might be useful in some cases, though for the ordinary run of medical work, it is unnecessary.

In regard to objectives, there is still great difference of opinion. It is out of place to enter the "battle of the lenses," waged so long and so bitterly over the relative merits of wide or narrow angles. A lens with good definition should be selected, and the angular aperture left to individual preference. An objective with a focal distance of one inch is a good low-power, and a good one-eighth will do for ordinary high powers. Of course advanced workers will need a higher power than an one-eighth objective will give; but these pages are intended for those who are not experts, and for them the objectives mentioned above will amply suffice.

In the examination of specimens, two modes are open to us, either examination in the fresh state, or after being kept in preserving fluids. In most cases, the latter is preferable, but instances arise in which the delay of hardening and staining make this method undesirable and the fresh specimen must be used. One of the earliest instruments used for this purpose, was Valentine's double knife. This consisted of two blades close together; the interval between them being regulated by a micrometer screw. On cutting the fresh tissue with this, a skilful manipulator could sometimes get a fairly good section between the blades. This was uncertain and not at all satisfactory, so other methods were devised. Of these the freezing microtome is by far the best. With this instrument the specimen is placed on a metallic plate, the under surface of which is exposed to a spray of some volatile fluid, and the specimen is hardened by the cold so produced. Care should be taken not to freeze it too hard, lest the knife should fail to cut it. Rhigoline or any of the volatile hydrocarbons may be used; but the odor of these being disagreeable, ether is frequently substituted. Another, and older form, consists of a hollow box containing a tube in which the specimen is placed, the box being then filled with crushed ice and salt. In this, which is called

the Rutherford freezing microtome, the freezing is done in the same way as in the familiar ice-cream freezer.

The specimen being rendered hard enough to cut, that is about a cheesy consistency, the section is made by methods given below, and is then placed in a one-half per cent. solution of common salt to thaw. Distilled water would cause the cells to swell so as to interfere with the examination; but the dilute solution of one-half per cent.—roughly two grains to the ounce—prevents this.

The difficulty in staining the nuclei in a fresh specimen led to the use of chemicals for hardening specimens. Of these hardening agents, alcohol and chromic acid, either pure or in salts, are the most generally used; but before hardening, the specimen must be *fixed*. By fixing is meant the killing of the cells in as nearly as possible their normal state. To do this, osmic acid is used, as it not only fixes but stains of a brown or black color. The specimen being cut into small pieces is immersed in a one per cent. solution of osmic acid and allowed to remain about twenty-four hours. It may then be preserved in a mixture of equal parts of glycerin, water and alcohol. Perhaps a better fixing and hardening solution is that known as *Delafield's osmic acid mixture:*

℞ One per cent. solution of osmic acid... 10 cc.
One-fifth per cent. of chromic acid....100 "
Nine-five per cent. alcohol ....100 "
Acetic acid..... ..... 1 " Mix.

After remaining in this twenty-four hours, transfer the specimen to 80 per cent. alcohol, in which it is to be preserved. These fixing solutions may be injected into the gross specimen, thus giving what is known as interstitial hardening.

Osmic acid is open to objections. It is very irritant, costly and volatile, and specimens stained with it do not readily take other reagents. In the vast majority of cases, *Müller's Fluid* is to be recommended. This consists of

Potassium bichromate..... 2 parts.
" sulphate..... ..... 1 "
Water..... ....100 " Mix.

Cut the specimen into bits and immerse in this solution. Use plenty of it, about 100 parts of fluid to one part of specimen. Change the fluid frequently, at first and later as often as it gets cloudy or a sediment forms. After hardening has occurred, soak in water for twenty-four hours and then in strong alcohol. Preservation is good in 80 per cent. alcohol.

If alcohol be used as a hardening agent, it should be weak at first and the percentage gradually raised; otherwise, the outside will harden and the inside remain soft.

Whatever agent be used, it should be abundant, as no more grievous mistake can be made than allowing a specimen to decompose through insufficient preserving fluid. Ample time should be allowed for the action of the re-agent, three weeks usually being required for Müller's fluid if small blocks of tissue are used—large pieces taking proportionately longer. Special tissues, as the eye and the nervous system, require special methods, which are described in treatises on the subject.

Having hardened our specimens, the problem of making a thin section of it arises. With some tissues, as the kidney, liver and many of the tumors, this is not difficult, as they are of sufficient consistency to be cut easily; but with thin or delicate structures, some support must be given. Various materials have been used for this purpose. Liver is still used, the specimen being placed between two bits of hardened liver and the whole cut. In like manner, alder-pith was used. The specimen was placed between two pieces of alder-pith, which were bound tightly together with thread, and then soaked in water. In this way the specimen was closely held by the expansion of the pith and good sections made. But it was found that with structnres like the lung this pressure was undesirable, and the methods of *impregnation* were adopted. One of the earliest agents used for this purpose was a mixture of oil and wax of low melting point, which was melted and the specimen allowed to stay in the molten material until thoroughly permeated, then removed

and allowed to cool. The imbedding mass hardening in the tissue, gave sufficient firmness to it.

Improvements followed, which it is unnecessary to detail, and we now have two methods, which seem to fulfil every indication. These are the paraffine and celloidin imbedding methods. Of these, the latter is so much the better, that it only will be described.

Celloidin is a purified, non-explosive form of gun-cotton.* It comes in thin shavings, and is soluble in a mixture of equal parts of alcohol and ether. Make a saturated solution of the celloidin, and as it takes some time to dissolve, prepare the specimen for it while solution is going on. This preparation consists in soaking the tissue in the alcohol and ether mixture for twenty-four hours, then in a weak celloidin solution; and finally, in the saturated celloidin solution. Then, when the celloidin has permeated the tissue, which takes two or three days, mount on a cork or bit of wood. If the specimen be small, it will suffice to pour some celloidin on the block of wood, place the specimen on it and pour some more around it; but if it be large, wrap some paper around the block, forming a box with paper sides and wooden bottom, put in the specimen and fill the box with celloidin. This hardens rapidly on exposure to the air, owing to the evaporation of the ether, and the block, with the imbedded specimen, should then be put into 80 per cent. alcohol. Cork is not good for this purpose, as it softens too much in alcohol; and on putting it into the microtome, is apt to spring and dislodge its burden. It is, perhaps, needless to say that the bottle containing the celloidin should be kept tightly corked to prevent the evaporation of the ether.

An experienced hand can cut very good sections without any instrument but a knife adapted for the purpose. To this end, a razor, ground flat on one side and concave on the other, is well suited.

Fill the concave side full of 80 per cent. alcohol, and have

*It is made in Germany, but may be obtained of Meyrowitz Brothers, 23d St. and 4th Ave., New York, N. Y.

the specimen in its celloidin bed well wet with the same, and shave off a thin section. Put this in a flat dish, containing 80 per cent. alcohol, and continue until the desired number of sections is obtained. The cutting is effected by drawing the knife from heel to toe, as it passes into the tissue, and not by a planing motion. If a frozen specimen is used, the sections should be shaved off rather than cut. The alcohol on the knife enables the thin section to float up from the blade, so as to be removed without risk of tearing. This method of free-hand cutting is impracticable where very thin specimens are desired, and some form of microtome must be employed.

These, like almost all other scientific instruments, vary unreasonably. The common idea in them all is the elevation of the specimen above a given plane in which the knife moves. This is effected in many ways. By the direct action of a screw playing on the specimen or the specimen being attached to a steel block, the block is pushed up an inclined plane. A far better conception of these instruments than a mere description can give may be gotten from the cuts in catalogues, or better, by seeing one in use. A micrometer screw determines accurately the thickness of each section.

The section being cut and floating in the shallow dish of 80 per cent. alcohol, the next step is staining. The object of staining is to bring into greater distinctness the two objects with which microscopic examinations have most to do, viz.: the nuclei and the cell bodies. For this purpose we use various re-agents. Osmic acid has already been mentioned as a staining as well as a fixing agent; and the brown stain of the nuclei given by it is of great use in some instances. For ordinary purposes, the hæmatoxylin—eosin stain—is the best for the hardened specimen. If the fresh specimen is to be stained, take it from the one-half per cent. salt solution, in which it has been allowed to thaw, and immerse it in *Carnoy's solution*. This consists of a mixture of a saturated aqueous solution of methyl green with one per cent. of acetic acid and one-tenth per cent. of osmic acid. Allow the tissue to remain in this for three or five minutes;

wash in water and mount in glycerin, or in equal parts of glycerin and salt solution.

For preparing the *hæmotoxylin stain* this will be found a useful formula: Take 400 c. c. [f℥xiij$\frac{1}{3}$] of a saturated solution of ammonia alum, add to this 4 gm. [℥j] of Merck's hæmotoxylin and 25 c. c. [℥$\frac{5}{6}$] of strong alcohol. Expose this to light for three or four days in an unstoppered bottle, till the color changes to a deep purple. Filter and add 100 c. c. each of glycerin and wood naphtha. This formula was devised by Dr. Francis Delafield, of New York, and may be obtained at the shops ready prepared, under the name of "Delafield's hæmotoxylin." Immersion in this stains the nuclei a deep purple, which persists after washing in water. To get the best results, it should be diluted with distilled water.

The nuclei being thus colored, transfer the section to the slip of glass and mount in glycerin, which has been tinged with an alcoholic solution of eosin. Previous to mounting, the section should be placed in the alcoholic eosin solution to stain the cell bodies. In this way the nuclei will be colored purple and the cell bodies pink. As pure glycerin would extract the eosin, it is important to use glycerin previously colored with this agent.

If it be desired *to mount in Canada balsam*, the section must be dehydrated. This is effected by 97 per cent. alcohol, after immersion in which the section is to be put in oil of origanium for clearing. By clearing is meant rendering more transparent. Oil of cloves does this well, but it dissolves the celloidin and renders the section more fragile; so when celloidin is used, oil of cedar or origanium may be substituted. Take the section from the oil, lay it smoothly on the glass slip, put on it a drop of Canada balsam, and put on the cover glass.

At last our section is ready for the microscope. Lay it on the stage and focus the low power objective first, so as to get a general idea of what it is that one is examining. Having found the points of greatest interest, bring the higher powers on them and study them carefully.

It may be thought that the process described above is tedious and complicated. This idea is erroneous. It is long, that is, a considerable length of time is necessary to harden and prepare the tissue, but the steps are simple and the solutions such as any druggist can prepare. Many of these may be procured ready made, but it is cheaper and better to prepare them at home.

In another paper, it is intended to go into the special methods employed with nervous tissues and the bacteria, and a few words on the examination of living tissue may not be amiss. Most of what is here stated is familiar to most readers of this magazine, but it is intended for those just beginning the use of this delightful and instructive instrument.

30 *West 61st Street.*

Clinical Reports.

Grain of Corn in the Windpipe—Tracheotomy—Successful.

By E W. ROW, M. D., of Orange, Va.

Ex President Medical Society of Virginia.

The son of C. C. Y., age 4 years, refreshed himself on Saturday, October 5, 1889, with parched corn, and accidently drew one of the grains into the windpipe. Violent cough and dyspnœa immediately ensued. Drs C. M. Moncure and C. C. Conway saw the boy and administered apomorphia hypodermically, which was followed by free emesis, the stomach ejecting its entire contents. Among the dejected mass were found several grains of corn. The relaxation produced by the emetic, caused more comfortable breathing, and it was thought by his attending physicians that the trouble had been removed.

In a few hours, however, the threatening symptoms returned, and Dr. Moncure was again called. He administered ipecac, producing again, by the relaxation it caused, easier breathing and then followed sleep.

At 12 o'clock at night I was called to see the little suf-

ferer, and found him in an unquiet slumber. The mucus râle could be heard several feet from the patient; and upon applying fingers to the trachea the foreign substance could be felt as it moved to and fro in respiration. He had high fever, a frequent, quick and corded pulse, flushed face, and respiration was hurried and irregular. In a few moments the child awoke suddenly, with short muffled cough and all the symptoms of impending suffocation—which was, to a very great extent, soon ameliorated by hot water and mustard plaster applied over the throat and inhalation of warm vapor from hot water, and he was given a powder composed of hydrarg. chloridi mite, gr. j; atropiæ sulphas, gr. $\frac{1}{60}$, and pulv. ipecac, gr. j. The patient again slept, and in an hour the fever abated to a considerable degree. The pulse became soft and less frequent, and the breathing easier than (the father said) it had been since the accident occurred. About 2 o'clock A. M., I left the patient, directing that I be called if the least change took place in respect to increased difficulty in breathing.

On arriving at my office I collected the surgical instruments necessary to perform tracheotomy and placed them in my case to have handy, should the symptoms become threatening enough to require the operation before daylight.

About 7 A. M. the father came hastily for me, stating that he "feared the boy would be dead before I could get to him," (a distance of little over 100 yards.) When I arrived the little fellow was unconscious; his face was black with venous blood; yet his head was tossing from side to side, and he had a sort of muffled, suffocative cough and looked as though each gasp would be his last. I took the bistoury for immediate operation; but the struggles were so great, and with no one collected enough to assist, I concluded to give chloroform cautiously, with a view of facilitating and rendering sufficient insensibility for a successful operation. To my great relief the chloroform calmed the convulsive cough, inspiration became fuller, and expiration less impeded; the dark blood soon began to leave the face, and finally he began to breathe so quietly that I felt confident that the operation could be delayed until some assistance could be obtained.

Dr. C. M. Moncure was sent for and came promptly, and concurred with me as to the necessity of the operation. He rendered me great assistance during the operation Tracheotomy was performed, and a large grain of corn taken out of

the trachea. After respiration became well established *per vias naturales*, and the bleeding had ceased, the wound was closed by adhesive strips, and recovery rapidly occurred, without an untoward symptom.

In reporting this case, I am aware that it is not of much interest to the profession, but it served to refresh my recollection of a similar case, which I attended in connection with Dr. C. W. Hume about thirty years ago, in which operative interference was not permitted by the family, yet the little patient continued to live, although he became reduced to almost a skeleton. But finally he was relieved by nature and abscesses having formed and ruptured into the bronchus, washing out the grain of corn. In that case the outer hard portion of the grain was in tact, while the heart or mealy portion had been absorbed. This patient, after daily expectation of death, for more than a month, recovered, and may be seen almost any court day at Orange C. H., the finest specimen of mature manhood, measuring six feet and weighing two hundred pounds.

In all cases where foreign bodies are suspected in the air passages, notwithstanding the dyspnœa and threatened asphyxia may, for the time, be partially relieved by relaxing remedies, yet, it is the imperative duty of the surgeon to watch the case closely, and to apprise the patient's friends of the probable alternative, so that both he and they should be fully prepared if finally operative interference is demanded.

With respect to diagnosis of bodies in the windpipe, I believe, when it is not impacted, the foreign substance can be easily felt in the trachea as it passes along that tube in the up and down movement caused by respiration; and I believe, also, (but I may be mistaken) that a foreign body may by detected by auscultation, by the rapidity of the movement and suddenness of the "thud" (so to speak) when compared with the movement of mucus in the tubes. The impression of the latter upon the ear is more diffused, does not start so suddenly, pass so quickly, or stop so abruptly, and without a distinct "thud" before reversing its motion.

I would also suggest that chloroform is not contra-indicated in partial obstruction by a foreign body in the air-passages, where a great factor in the production of symptoms threatening asphyxia, etc., is dependent upon spasmodic muscular contraction.

An Interesting Laparotomy for Pyo-Salphinx-Recovery *

By JUNIUS F. LYNCH, M. D., Chattanooga, Tenn.

Mrs. G., a widow, age 35, applied to me for treatment some months ago. She complained of intense pain in the right iliac region, extreme tenderness over the right ovary, backache, irregular and painful menstruation and leucorrhœa. The pain was particularly severe during the menstrual flow, and during the inter-menstrual period she was troubled with a profuse discharge of pus from the uterus. The appearance of this discharge was generally accompanied by a more or less complete cessation of the pains, and a consequent feeling of relief. A vaginal examination revealed a badly lacerated cervix and a uterus retro-flexed and firmly bound down by adhesions. Before operating, my treatment had been palliative—morphine subcutaneously injected and local applications—but the relief thus obtained was, of course, only temporary, and as a dernier resort I decided upon the removal of the uterine appendages. The danger of the operation was explained to the patient; but realizing that it offered the only chance of recovery she readily consented to have me perform it.

The operation was performed on the 16th of August in a large, airy room near the foot of Missionary Ridge. On the day preceding the operation the room was scoured and thoroughly fumigated with sulphur; the fumigation was repeated the following morning; and for half an hour before the operation a 20 per cent. solution of carbolic acid was sprayed about the room. Forty-eight hours before the time set for the operation I administered to the patient a dose of castor oil, and after this she was not allowed to take solid food; this was the only preparation that my patient received for the ordeal through which she was about to pass.

After having been anesthetized, she was removed from

*Read before the Tri-State Medical Association of Alabama, Georgia and Tennessee, October 16, 1889.

the bed to the operating table, the bladder emptied, the pubes shaved and the abdomen washed with a 1-2000 solution of bichloride. I made the incision in the median line, extending it from half an inch below the umbilicus to within an inch of the symphysis pubis. The skin and superficial fascia were cut through, and the incision carefully continued down to the peritoneum. All bleeding vessels were then secured, and after cleansing the wound with Thiersch's solution, the peritoneum was lifted with a tenaculum and with the scalpel I made an incision large enough to admit a grooved director and then extended it about three inches. I passed my hand into the abdominal cavity to the fundus of the uterus, and endeavored by following the broad ligament to reach the ovary. The left ovary was easily found, but was so firmly bound down by adhesions that its removal, until after further exploration had been made, was not deemed advisable. Upon passing my hand to the right side I found a large cyst of the broad ligament, several small ovarian cysts and a pyo-salpinx. I expected to find some adhesions but was not prepared to find them so extensive. Adhesions between the cyst walls and the intestines, peritoneum and omentum formed a net-work so strong that all efforts on my part to break them down were futile. Some intense inflammation, of which I could obtain no history, had thrown out its fibrous matter and thoroughly matted the intestines together, constricting them at some points with broad fibrous bands, and at others firmly binding them to the adjacent parts.

In my efforts to break down the adhesions and remove the cysts the pyo-salpinx ruptured and a large quantity of pus escaped into the abdominal cavity; I promptly removed it with sponges, and washed out the cavity of the abdomen with warm Thiersch's solution. At this point the patient's vitality was becoming rapidly exhausted, and several hypodermic injections of brandy were administered.

Finding that on account of the network of adhesions any further attempts to remove the cysts would be useless, I determined to evacuate them, trusting that a removal of the fluid would give some temporary relief, and, perhaps, prolong the life of the patient. Five cysts were evacuated with the trocar and canula, and a large quantity of fluid removed. After having evacuated the cysts I washed out the abdominal cavity with warm Thiersch's solution until the water came away perfectly clear. The wound was closed with six silk sutures, washed with a 1-2000 solution bichlo-

ride, and a drainage tube—previously carbolized—introduced. The dressings (bichloride gauze and absorbent cotton) were then applied, the patient removed to her bed and hot bottles placed to her feet. A hypodermic injection of morphine and atropia was administered to prevent shock. The operation began at 4 o'clock p. m., and was completed at 5:30 p. m. I am indebted to Drs. Haltzelow, Gahagan, Barkly, Craig and Crumley for their assistance. On the day following the operation there was visible distension of the abdomen due to the formation of gas in the intestines. To relieve this condition teaspoonful doses of Epsom salts were given every hour, and occasional enemata of turpentine and assafœtida were administered; a large rubber tube was passed some distance up the rectum and through this an enema of turpentine and warm water was injected, but in spite of all I could do, the gas continued to accumulate. The patient was growing weaker each day—hiccoughing constantly and vomiting at intervals a dark, greenish matter.

Having exhausted all means of relieving the distensions, I feared intestinal obstruction and determined to cut her open again and endeavor to remove it; before doing so, however, I decided to give the tube another trial; this was on the morning of the fifth day. That afternoon she had a copious action from the bowels; the distension disappeared, and she immediately began to improve. The patient's diet was restricted to milk, egg-nogg and chicken broth with thin biscuits; her condition gradually improved until the fourteenth day, when for some unaccountable reason, both temperature and pulse took a sudden bound.

August 30, 11 A. M. This is the fourteenth day of sickness. Pulse 130; respiration 27; temperature 103½° F. Retension of urine. Complains of severe pain in lower part of abdomen. Ordered a tablespoonful of whiskey every hour and six grains of antifebrin every two hours. 6 p. m. Pulse 120; respiration 27; temperature 101° F. Pain not as severe. 11:30 p. m. Pulse 120; respiration 26; temperature 90° F. Sleeping soundly. Ordered following:

R. Fl. ext. Strophanthus.....f ℥jjss
Spts. ammon. aromat.....f ℥ss
Aq. dist., q. s. ad.....f ℥jv
M. Sig. A teaspoonful in water every two hours.

This produced a prompt and decided action, the pulse becoming stronger and less frequent, and the general condition better. The death of my patient was freely and confi-

dently predicted by the gentlemen who saw me operate; one gravely declared that she would not leave the operating table alive, and another, more generous, gave her a five days' lease on life. The patient is now out of danger, and is rapidly regaining her strength; her appetite is good, she is cheerful and is up and going about. The wound has completely healed; the stitches were removed on the tenth day, and on the sixteenth day the drainage tube came away of itself.

Case of Suspended Respirationof Six Hours Duration Following an Attack of Active Congestion of Lungs and Brain—Recovery.

By J. M. PINKSTON, M. D., Birmingham, Ala.

March 1st, 1888, I was called to see Walter B., age three months, suffering with a severe cough, thought by the parents for several weeks, to have been whooping-cough. The attack had been non-febrile in character, and attended with little or no constitutional disturbance; consequently, it was not deemed necessary to call in a physician, but I was asked to prescribe for it once or twice, which I did without much if any relief. At the time of my visit, its temperature was a little above 100° F., and pulse accelerated in proportion. Auscultation revealed slight mucous râles in the larger bronchial tubes.

The following night (March 2nd), temperature normal; pulse normal, with the exception of being a little full; respiration normal. Of course the child still had occasional attacks of coughing, but with the exception of a little hoarseness, the child was to all appearances perfectly well, bright and playful. At 10 p. m., when, after giving the mother some instructions as to what she should do if the child should have spasmodic croup, which I thought more than probable, I took my departure.

About 12:30 A. M., two and a half hours after I left, Mr. B., the father, came after me in haste, saying his child had croup and was breathing with considerable difficulty. They had given one dose of alum and honey, and were preparing to give another dose when I entered the room; I let them give it before making any examination. There was distressing dyspnœa. The child's condition was an extremely alarming one. He breathed very shallow and quick, and

with the greatest difficulty ; I could hear respiratory murmur in only a small portion of the upper lobes of the lungs ; the child appeared to be conscious, but its expression was one of great distress ; the pulse was thready and at times almost imperceptible, 200 or over to the minute. Twenty minutes afterwards, there being evident signs of approaching convulsions, I put the lower extremities in hot water and administered chloroform for half an hour In the meantime I gave digitalis, quinine and ergot, hypodermically. After about an hour, the tendency to convulsions subsided, but the child's condition was one of unconsciousness after the first twenty minutes, for twenty or twenty-four hours, requiring careful watching and frequent administration of such remedies as were necessary to control the action of the heart. While in this unconscious state, the respiratory functions were gradually restored to their normal condition, but the pupils remained contracted, responding to light, only very slightly, at intervals. At about 7 or 8 A M., the child bored its head in the pillow, with the muscles of the back of the neck decidedly contracted. By the constant use of ice and the frequent use of such medicines as were indicated, also stimulants, the child's dangerous condition was entirely relieved in about thirty hours.

At 6 o'clock Tuesday morning, thirty hours after commencement of attack, gave one grain of quinine, which made the fifth dose given (five or six grains.) About 12 o'clock there was irregular respiration, intermission about one in every six, which was relieved in half an hour by ten drops of brandy, given, during my absence, by its mother. I had suspended all treatment, with instructions to watch the pulse and give brandy if indicated—not anticipating, however, the state of things that afterwards occurred.

At 3:30 P. M., was called in haste and found a long intermission after every three respirations, more or less stupor, with a strong disposition to sleep ; this condition of the respiration lasted about an hour, during which time 25 drops of brandy were administered. The child was then aroused, and was bright and playful, and apparently perfectly well. Its pulse was a little accelerated (140) and little weaker than natural, which was to be expected under the circumstances ; the same condition returned at 11:30 o'clock, notwithstanding the administration of brandy, ten or fifteen drops every two or three hours. Twenty-five drops given at the time of recurrence of trouble failed to elicit any response ; half hour afterwards there was an entire absence of respiration, there

was a want of inclination to breathe during the irregular respiration, rather than an inability to do so; as long as it breathed at all, respirations were full, free, and without difficulty. I determined to use artificial respiration until I could relieve the unhappy condition, which I thought was, perhaps, temporary in its nature, and susceptible of being overcome. It was necessary to keep up artificial respiration for six hours, during which time I would suspend operation at short intervals and observe very closely to see if there was not an inappreciable or almost imperceptible respiration; in a short time the lips, cheeks and eyelids would begin to turn purple, which would disappear after inflating the lungs a few times.

Now here was a child whose system was apparently in a perfectly healthy condition and presenten a perfect picture of health, as large and strong as most children at five months old, with death stamped on its face in less than one minute; the signs of impending death were unmistakable; purple lips and eyelids with pinched features and drawn mouth, which was kept alive by artificial respiration for six hours. The condition was very similar to opium poison, only the pupils responded very sluggishly to light; heart's action and pulse remained much better than could be expected under the circumstances, (only 140) and very good volume, though after a cessation of respiration until the above symptoms referred to were observed, the pulse was accelerated and weaker.

The question of causation is to be considered. In the first place, could the use of quinine have been the cause of the trouble? If so, why should there be an interval of six hours between the last dose and the first effect and thirteen hours before the full manifestation? Is there a case on record where quinine paralyzed the medulla oblongata or respiratory centre?

In the second place, could it have been the result of a passive congestion of that portion of the brain, and the suspension of the respiratory act?

I neglected to state that its temperature was high, in the commencement of its attack, but its condition was so preca-

rious at the time, I never thought to take its temperature until an hour or more had elapsed, then it was at 102.5° F. It is reasonable to suppose its temperature had been reduced, at least one degree, and maybe more. I think we are justified in not giving quinine credit for the trouble. I can't realize that there should have been an interval of six hours between the administration of the last dose of quinine, hypodermically, and the first manifestation of the effects on the nervous system.

I regarded the case as one of paralysis of the medulla oblongata, due to passive congestion, and determined to keep it alive as long as possible by artificial respiration, and endeavored to overcome the trouble by the use of strychnia, atropia and ergot which I gave also hyperdermically. After six o'clock Wednesday morning no further treatment was necessary; one of the places on the child's leg where the quinine was inserted, suppurated and caused a considerable sore, but it cured up rapidly, and was of no consequence.

I neglected to state that there was whooping-cough in the community, and the paroxysms of coughing previous to the attack of congestion, resembled whooping-cough very much, and it whooped once or twice Monday evening. But after Tuesday it disappeared suddenly and entirely. However, it seems to have been a mild bronchitis of a chronic character, as the child now has whooping-cough. The subsidence of this cough suddenly and entirely after a duration of three weeks and resisting other treatment is an interesting feature also.

One point which I wish to call special attention to is the entire absence of dyspnœa, but apnæa or absence of respiration instead. Afferent nervous impulses by the use of mustard, cold water, etc., had no effect in stimulating the respiratory act.

I think we are justified in concluding that the condition was one of paralysis of the respiratory centre only, and demonstrates the importance of perseverance of treatment.

Some Back-Wood's Surgery.

By BEN. H. BRODNAX, M. D., of Brodnax, La.

A polypus on the under side of the right upper eyelid, in a child, 18 months old. Trusting to the pressure of the lid upon the ball of the eye, I everted it, and with two snips of my scissors removed it, dusted a little gallic acid over the cut surface and let the lid back into place. About two drops of blood came from underneath the lid. The growth was half inch wide and a quarter inch thick, flattened, similar to a mineral door knob, and was imbeded in the tissues—the base being the whole width.

A polypus at the mouth of the urethra of a young woman unmarried, the size and shape of a bean, three-quarters inch long and a quarter inch thick, lying lengthwise upward into the passage. It was troublesome, because it rendered micturition painful, and bled freely after each attempt. I inserted a small curved retractor, seized the growth with a pair of dressing forceps, raising it up, and severed it with the scissors at one snip. It was attached its whole length by a broad base. To check the bleeding, I dipped my knife blade in carbolic acid solution 50 per cent. and pressed it flat on the cut surface for one or two minutes. On removal, no blood followed. Laid on the cut a piece of cotton, saturated with sweet oil and carbolic acid, ten drops to ounce of oil. No return six months afterward.

I treated a *polypus of nose* of same size, same way; no return

A large *bleeding fibroid of the uterus*, three and a half inches long, one and a half thick, oval, weighed five ounces, attached by a base a little over one inch thick to the fundus. Examination showed the womb soft and flaccid, the os patulous. By pressing the womb down by fingers above the pubes, I slipped the womb back over the growth with the right hand and cut and pinched the fibroid off with finger nails. No chloroform and no medication were used. There was only a slight waste of blood, the womb righting itself. A glycerin and tannin tampon was applied after the blood ceased, and this was all that was done. No return two years after. I learned this idea from Dr. Jno. D. Hammond, of our parish.

Fibroid growth, one and a half inches long, one thick, egg shaped, attached to the right thigh, inner side, near the vulva, had grown for several months, causing much inconvenience in walking. I punctured it to be sure of its character. Two cuts with a bistoury, dipped in sweet oil, removed it. The

raw surface was dressed with equal parts of callic acid and bismuth sub-nitrate. A compress and bandage were applied. There has been no return of the trouble.

Fibroid, size of a large hen egg, under the skin at junction of sternum and short ribs. The woman would not submit to the knife. I passed a curved needle, threaded with cotton twine, through the centre of the growth and cut the ends of the thread off on each side within a fourth of an inch of the skin. Suppuration set up and in two weeks the growth had entirely run out and healed over.

These crude cases would seem rather "brash" treatment to some, who advocate that all operations should be done only under antiseptic treatment. But here "in the back-woods" we cannot afford all the appliances and nice things required by such a doctrine. I note these cases to show young medical practitioners, that costly ecraseurs, wired shot, ligatures of silver wire, etc., are not indispensable. I have several times splinted a broken arm with a piece of bark stripped from a dead sappling, using my handkerchief, or one or two lengths of bandage from the caudal appendage of my shirt.

A very strong negro stuck the point of his knife into the *ulnar artery, wounding* it four inches above the left hand. A piece of corn stalk, cut in the field, and a strand from his plow line was all that was required to stop the blood. I placed the piece of stalk at the bifurcation at the elbow and tied the forearm, bent upon itself, to the shoulder. I pressed a little turpentine and sugar into the cut, and closed the wound with a piece of rag tied around the arm. There was some œdema of the hand for a day or two, and on the second day removed the plow line—no bleeding.

Some doctors would have cut down to, and taken up the artery with a ligature—kangaroo sinew, to be fashionable. But with no assistance and no chloroform, one gets tired of such tricks.

Dioviburnia.—"For more than a year I have prescribed 'Dioviburnia.' In those cases that I have been able to follow up, I found that they derived much benefit from its use in almost every form of dysmenorrhœa, especially the congestive form. I am so pleased with this remedy that I now prescribe it almost daily."—J. L. PAPIN, M. D., St. Louis.

Correspondence.

"The Law Governing the Practice of Medicine in Alabama is Not Detrimental to the Public nor an Imposition to the Medical Profession."

Mr. Editor: The present law governing the practice of medicine in the State of Alabama, has been discussed oft and anon by men who, by their arguments and mode of expressions, have endeavored to illustrate that, instead of an advantage, it is a detriment to a community. By placing it in a false and unjust light, they hoped to stir the indignation of the public against it. They labored to have it crushed and annihilated, but thus far their efforts have failed, and only constructed bulwarks by which its maintenance is upheld and protected. Not long since, an article entitled "Some Proposed Medical Legislation" and signed "Fair Play," appeared in the columns of one of the daily papers edited within the borders of our State. This article, as well as others that I have perused, I now endeavor to answer.

But since the subject under discussion pertains mostly to the physician and only interests the civilian secondarily, I shall not have recourse to local papers, but will give vent to my opinion through the pages of a medical journal. With this object in view and with the hope that it will reach the reading doctors of Alabama, I select as my mouth piece the *Virginia Medical Monthly.*

The author of the article alluded to in the preceding lines, has either been greatly misinformed or has ventured to write upon a subject of which he knows extremely little. His very first argument is as brittle as glass, and displays at once his ignorance of the question. The pharmaceutical law does not prevent the merchants residing in towns or villages with less than one thousand inhabitants from selling a stock of ordinary drugs, Let this suffice to show that "Fair Play" is in want of knowledge regarding the law regulating the practice of pharmacy in the State of Alabama.

And now to proceed to the general writers upon this question.

It is absurd that any citizen should raise his voice against a law, the wisdom of which is so apparent. The State could have taken no better step than she has done in this law to protect the lives and the pockets of her people from quacks and charlatans.

A graduate of medicine from any "chartered institution," enjoying any repute whatever, would not allow an examination by a board to impede him in his professional undertaking. On the contrary, he should grasp the opportunity of showing his qualifications as a physician and of reflecting honor upon his "alma mater." But when writers brandish their sword and endeavor to strike the medical fraternity at large and boards of examiners particularly, I feel compelled to resent the assault.

Many maintain, and even insist, that a diploma from a chartered medical college should entitle its holder to engage in the practice without further examination. It is a notorious fact that there are colleges that grant diplomas upon very inadequate qualifications. The law which Alabama has passed, endeavors to stand between the people and such colleges, and to protect the lives of the former from the reckless work of the latter in turning out upon the public men poorly fitted for such responsibilities. The graduates of the most renowned universities in Europe are required by their several governments to undergo a second examination before they can enter upon practice. If that is deemed necessary *there*, how much more should it be necessary *here* in the United States where so many colleges exist that are anxious to swell their lists of graduates as large as possible.

Another point of argument for these opposers is the following: They make a thrust at the honesty of the examining boards which Alabama has constituted, by asserting that they would suppress competition by rejecting applicants for license.

This thrust is as unjust as it is untrue. The examinations under the law are held in writing, and the papers are on file and show for themselves whether the rejections were proper or not. Could these gentlemen see these papers and the degree of incompetency they show, they would no longer

plead so eloquently for the right of such men to engage in practice.

Finally, they endeavor most faithfully to show the folly of such a law, by mentioning that "States that have the most eminent physicians and surgeons have no such requirements; States that can show the greatest progress in devising ways and means for the healing of the sick, practice no such imposition upon those who come to live and labor within their borders." Undoubtedly, when such words are penned by their hand, they have reference to the State of New York. True it is, at present no such law exists there. But New York, as well as Texas, Louisiana and other States are striving to establish some such law. It is to the credit of Alabama that she has succeeded in doing what other sister States have tried to do, and what Virginia and North Carolina have done, but what other States hitherto have failed to secure as yet.

I trust I have clearly and fully explained the object of such a law, and that every one who may perchance peruse this may, by words and actions, so manifest their support of it that those in power may not feel at liberty to veto the will of the public. Every good and law-abiding citizen, of whatever color, should rejoice when evils are extirpated from among them, although during the excitement of their removal, nervous trepidation may cause a general feeling of anxiety. Such will be the joy of the people of these United States, when they realize that the evils growing out of licensing incompetent doctors have been abolished throughout her borders.

ANGELO FESTORAZZI, M. D.
Late Assistant Surgeon Chambers Street Hospital Out-Door Patient's Department, of New York.
61 *Government Street, Mobile, Ala.*

The uncertain strength of Coca leaves makes this drug very unreliable, unless a preparation is used which we *know* to be made from a good leaf. "Robinson's Wine Coca" is prepared by percolating *assayed* Coca Leaves with Sherry Wine, and has always been found entirely satisfactory.

Hydroleine--Its Value Confirmed.

La Salle, Ill., Oct. 1889.

C. N. Crittenton, Esq., New York.

Dear Sir:—Last winter an agent from your house called upon me and left two sample bottles of Hydroleine. I approved of the formula, and concluded to give hydroleine a fair test.

March 3rd, a gentleman, age 58, called at my office, who was suffering from a cavity in right lung; he had night sweats, hectic fever and free expectoration. I gave him a bottle of Hydroleine. He improved from the start, and in six weeks was entirely cured.

March 14th, Mrs. B., age 20, called on me professionally. I found her suffering from night sweats, hectic fever, loss of appetite, etc. Upon examining the lungs, I discovered sonorous râles throughout the entire lungs. I then found that her physicians in Iowa had sent her home to her mother here, saying she could not live more than three weeks. I put her on Hydroleine, alternated with syrup of iodide of iron and syrup hypophos, of equal parts. She improved rapidly, so that the syrups were discontinued after two weeks, and continued the Hydroleine. To-day, she has fully recovered, weighs more than ever before, and is the picture of perfect health. I believe the Hydroleine saved the lady from a premature grave.

Hydroleine has exceeded my most sanguine expectations, in all of the many cases in which I have used it; therefore, I can conscientiously recommend it.

Very respectfully,

[Signed] Floyd Clendenen, M. D.

Papine.

Dr. L. C. Carr, Professor of Obstetrics in the Cincinnati College of Medicine and Surgery, Cincinnati, Ohio, says: "I have given Papine (Battle) a fair trial, and am well pleased with its action, especially so in the case of an infant suffering with an attack of convulsions. Its action was speedy and safe.

Proceedings of Societies, Boards, etc

MEDICAL EXAMINING BOARD OF VIRGINIA.

The Semi-annual meeting of the Medical Examining Board of Virginia, was held in Roanoke, Va., September 3d, 4th, and 5th, 1889.

Dr. Hugh T. Nelson, the President, called the meeting to order. A roll call by the Secretary, Dr. Hugh M. Taylor, showed the following members present: Drs. Brown, Bowyer, Buckner, Clarke, Greer, Harris, Hicks, Irving, Lewis, R. W. Martin, Meriwether, Nash, Neff, Nelson, Patterson, I. S. Stone, Taber, Taylor, Walker, Winston.

The following examination questions were read, and after discussion by the Board, were adopted.

Examinations September 4th and 5th, 1889.

I.—Section on Chemistry.

Members:—Drs. R. A. Lewis, of Richmond (city), *Chairman;* Hugh T. Nelson, of Charlottesville, Jesse H. Peek, of Hampton, and P. B. Green, of Wytheville.

Ques. 1. 1000 grains of calomel. State its chemical name, composition and formula. How much of each element enters into the formation to produce the amount specified?

Ques. 2. State the differences between chemical affinity and the forces of adhesion and cohesion.

Ques. 3. Give the formula as nearly as possible of urea. State in what form it appears in the urine, and how it may be recognized?

Ques. 4. What is nitrogen? Give its combinations with O. and H., and their properties.

Ques. 5. How would you detect blood, bile, casts, and albumen in the urine?

Ques. 6. Give the history of the metal calcium; its distribution in nature; its properties, physical and chemical. Its combinations and their uses, economic, chemical and medicinal.

II.—Section on Anatomy.

Members:—Drs. Hugh M. Taylor, of Richmond (city), *Chairman;* Wm. P. McGuire, of Winchester, Paulus A. Irving, of Farmville, and R. D. Huffard, of Chatham Hill.

Ques. 1. Describe the borders, surfaces, angles, processes and articulations of the scapula.

Ques. 2. Name and give origin and insertion of the extensor muscles of the fore arm.

Ques. 3. Locate and describe the formation of the circle of Willis.

Ques. 4. Describe the sub-clavian artery.

Ques. 5. Give distribution of the three great divisions of the fifth pair of nerves.

Ques. 6. Describe the pelvis of the kidney, and the relations of the ureters.

Ques. 7. Give general and descriptive anatomy of the stomach.

Ques. 8. Give general and descriptive anatomy of the male bladder.

III.—Section on (I) Hygiene and (II) Medical Jurisprudence.

Members:—Drs. James Parrish, of Portsmouth, *Chairman;* S. W. Carmichael, of Fredericksburg, James W. Tankard, of Burgess Store, O. B. Finney, of Onancock, and C. B. Young, (Homœop.)

Ques. 1. What are the essential factors in the production of the malarial poison, and what precautions should be adopted to ward it off?

Ques. 2. Is typhoid fever a contagious disease? Is a specific cause necessary for its production, and will animal or vegetable decomposition alone produce it?

Ques. 3. What precautions should be taken to prevent the spread of a contagious disease?

Ques. 4. What important points are to be considered in the sanitary inspection of a house?

Ques. 5. Give character of wounds inflicted before and after death.

Ques. 6. Give classifications of poisons, and the symptoms that would excite suspicion of poison.

IV.—Section on Physiology.

Members:—Drs. Wm. L. Robinson, of Danville, *Chairman;* A. Trent Clarke, of South Boston, I. S. Stone, of Lincoln, and Leigh Buckner, of Roanoke.

Ques. 1. Name sounds of the heart, and give causes entering into their composition.

Ques. 2. Give minute description of the process of digestion in the stomach of a meal of bread and milk, fat and lean meat and vegetables.

Ques. 3. Give definition and composition of a cell, and give in detail its physiological functions.

Ques. 4. Name and locate the physiological centres on the floor of the fourth ventricle.

Ques. 5. Explain thes object of secretion and excretion; the function of the kidney, naming the agencies mainly operative.

Ques. 6. Describe the functions of the liver, and how are its secretions used in the body?

Ques. 7. Describe the mechanism of defecation, and name the gases contained in the alimentary canal.

Ques. 8. Describe the mechanism of the voice.

V.—Section on Materia Medica and Therapeutics.

Members:—Charles C. Conway, of Rapidan, *Chairman;* Hugh Stockdell, of Petersburg, J. H. Neff, of Harrisonburg, R. F. Young, of Love's Mills, and M. A. Douglas, (Homœop.) of Danville.

Ques. 1. Name circumstances relating to the human system which modify the action of medicines.

Ques. 2. Describe the foreign and domestic leech, and give their chief uses in practice.

Ques. 3. Give source, nativity, part used, medicinal uses, and doses of hyoscyamus.

Ques. 4. Name the chief drastic cathartics—their doses and uses in practice.

Ques. 5. Give chemical formula, medicinal uses, and doses of chlorate of potash.

Ques. 6. Give chemical formula, medicinal uses and doses of muriate of ammonia.

Ques. 7. Name the antacids, and give their medicinal uses.

Ques. 8. Name chief uses of cod liver oil, and give rationale of its therapeutical action.

Ques. 9. Give contra-indications to the uses of opium.

Ques. 10. Give therapeutical uses of vesicants.

Ques. 11. Name the most reliable escharotics, and the purposes for which they are employed.

Ques. 12. Name most important precautions that should be observed in hypodermatic medication.

VI.—Section on Obstetrics and Gynæcology.

Members:—Drs. Z. J. Walker, of Brownsburg, *Chairman;* H. M. Nash, of Norfolk, B. L. Winston, of Hanover C. H., R. I. Hicks, of Warrenton, and George A. Taber, (Homœop.,) of Richmond.

Ques. 1. Give the normal size of the uterus in both nulliparous and multiparous women; its normal position in the pelvis, and the variety of tissue of which it is comprised.

Ques. 2. What effect has pregnancy on menstruation and ovulation?

Ques. 3. What are the auscultatory signs of pregnancy?

Ques. 4. State some of the circumstances which so readily facilitate the change from a physiological to a pathological condition, in the puerperal state.

Ques. 5. Give causes and treatment of ante- and post-partum hæmorrhages.

Ques. 6. Give varieties, symptoms, and modes of treatment of extra-uterine pregnancy.

Ques. 7. Mention the methods pursued for the induction of premature labor, and the circumstances which may demand it.

Ques. 8. Differences between cephalic and podalic version, with the conditions rendering either necessary.

Ques. 9. Diagnosis and treatment of uncomplicated retroversion.

Ques. 10. What conditions of the pelvic contents render the use of pessaries inadmissible?

Ques. 11. Give symptoms and treatment of sub-involution of uterus.

Ques. 12. Differential diagnosis of uterine fibroid from other abdominal tumors.

VII.—Section on Practice of Medicine.

Members:—Drs. Rawley W. Martin, of Chatham, *Chairman;* Bedford Brown of Alexandria, Henry M. Patterson, of Staunton, W. J. Harris, of Blackstone, and W. P. Jones, (Homœop.), of Petersburg.

Ques. 1. Causes of { Gastralgia. / Acute Bright's disease.

Ques. 2. Morbid Anatomy { Endocarditis. / Aphasia.

Ques. 3. Symptoms of	Gastric ulcer. Small-pox.
Ques. 4. Diagnosis of	Typhoid fever. Lobar pneumonia.
Ques. 5. Treatment. of	Typhoid fever. Acute pneumonia. Scarlet fever.

VIII.—Section on Surgery.

Members:—Drs. T. B. Greer, of Rocky Mount, *Chairman;* G. D. Meriwether, of Pedlar Mills, L. Ashton, of Falmouth, T. M. Bowyer, of Liberty, and F. Webster, (Homœop.), of Norfolk.

Ques. 1. Causes of	Retention of urine. Vesical calculus. Erysipelas. Phlebitis.
Ques. 2. Morbid Anatomy	Periostitis. Cystitis.
Ques. 3. Diagnosis of	Concussion and compression of brain. Vesical calculus. Dislocation of femur on dorsum ilii. Aneurism.
Ques. 4. Treatment of	Fracture of neck of femur. Traumatic hæmorrhage.

The subjoined tables show that twenty-six applicants were before the Board, two withdrew after writing parts of the examinations, eight were licensed by the Board, and sixteen were rejected.

Dr. Hugh T. Nelson, President, of Charlottesville, Va., presented the following as the *Report of the President:*

Charlottesville, Va., Sept., 3rd, 1889.

Gentlemen of the Medical Examining Board of Virginia:

Since our last meeting in the month of April, of the current year, with three or four exceptions, you have had no annoyance, such as you were formerly subjected to when examinations by *individual members of the Board were in order.* The Executive Committee—the Secretary, President, and three other members of the Board, viz.,—Drs. Ashton,

Walker, and Winston—have done work in the interval between the present session and the last.

You are aware, that at the last session of the Board, thirty-nine applicants appeared for examination, of which *twenty-two* received the certificates of the Board, two withdrew from the examination, and fifteen were rejected.

Laboring under a misapprehension of the law, and guided by *precedent*, I told several of the rejected applicants, that, under the law, they could demand a re-examination within three months from the date of their rejection. This decision, I am now satisfied, is entirely at variance with both the letter and spirit of that section of the Medical Bill bearing upon the subject. But in fulfilment of a promise virtually made to have an examination held by *committee* at the close of the three months, dating from the session of the Board held in Richmond in April, I deemed it expedient to call a committee to meet at Charlottesville on the 10th of July, last.

Under a further misapprehension of the law, having inferred that the spirit of the law forbade the Board to keep any one waiting for examination for a longer period than three months, I issued two permits to others than *rejected* applicants to appear before the committee expected to convene at Charlottesville.

One of these applicants had graduated at an institution a very few weeks after the adjournment of the last session of the Board, and the other, though a graduate of several year's standing, applied almost immediately on my return home in April.

As you will call to mind, I presented a petition to you in April from the medical students of the University of Virginia, requesting that you hold a session in Charlottesville for their benefit in July. When I had completed the reading of this petition, the Secretary of the Board stated in your hearing, that the late Dr. James L. Cabell,—whose death has so recently left a vacancy in the ranks of the profession in this State which it will be hard indeed to fill—had just written to him, stating that he wished it distinctly understood, that the Medical Faculty of the University of Virginia, did not desire nor demand, any special examination of their graduates.

In view of the position taken by one for whom we all cherished such profound respect, it was decided that no examination should be held for the graduates of this institution until our present meeting; I presumed that none of them would apply.

* * * * * * * * *

A special examination for rejected applicants was held, however, at Charlottesville, Va., July 10th, 1889. Only one person appeared for examination, and he, having passed a successful examination, was granted a permit to obtain license to practice.

Having recently carefully considered the "*Law Regulating the Practice of Medicine and Surgery in Virginia*," in all of its bearings, after consultation by letter and in person with the members of the Executive Committee—Drs. Preston, Robinson, Nash, and Taylor—and after advising with prominent members of the legal profession in my own city, I am thoroughly satisfied that it is not obligatory upon the Board to examine rejected applicants at the expiration of *three months* from date of such rejections.

There are few, if any circumstances, requiring the calling of a committee for the purpose of holding an examination; such an occasion is to be provided for, and when an application is made by an individual whom actual sickness or calamity *prevented from attending a meeting of the Board*, an opportunity for examination should be given him. In the consideration of all such cases, two points are of paramount importance:—the impartial execution of the provisions of the law, and an endeavor to popularize the Board with the citizens of the Commonwealth.

The fact of the existence of two medical schools in the State, coupled with the fact that the *spring session* of the Board is always held in Richmond, convenient to, and a very short time after the closing exercises of the *Medical College of Virginia*, impresses me with the belief that our *Second Semi-annual Session* should be held in Charlottesville for the benefit of the University of Virginia. It could not be maintained that the session was held in the interest of the latter school, since any person desiring themselves so to do, could present themselves before it, as well as before the meeting convened in the spring. Of one thing I am thoroughly convinced, and that is, of the disadvantage of holding our fall (second) session at the same time and place of the session of the "*Medical Society of Virginia*."

It has heretofore been customary for the members of the Board—to a considerable extent—to attend to the business of their respective sections and leave for home immediately. Your attention has frequently been called to the disadvantage of this procedure, and you are again requested earnestly to remain during the whole time required for the session. The most important of all questions demanding your

consideration, do not present themselves till the actual work of the examination is completed.

The manner of selecting questions for the different sections, is one of great importance, and should demand your attention. Each member of a section should select, study carefully, and forward to the Chairman of such section, *at least one month before time of expected session*, the required number of questions on his subject. From these the Chairman should select the required number, consolidate, and refer back to each member of the section a copy of the same.

In view of the fact that so many changes have been made in our ranks since the publication of our last report, I deem it best to append a list of the committees as they stand to-day.

Since our last meeting the hand of death has stricken from our roll the name of Dr. Alexander Harris, of Culpeper county. A fearless, conscientious Examiner, a man of learning and ability, fully abreast of the advances of the day, a wise counseller, a valued friend; we who knew him, will never cease to miss him.

Sixteen names of those enrolled as members of this Board at the time of, and since its organization five years ago, are not now found upon our records. Of these, four,—Ward, Cunningham, Black, and Harris—have "*crossed over the river and are now resting under the shade of the trees.*"

In conclusion, I would urge upon you all, for the good of our profession, for the interests of the Board, and the proper conduct of the enterprise for which it was created, no more resignations take place until we have served out our time. Illy can we spare from our ranks such men as Moore, Douglas, Latham, Preston, and others, who might perchance, by a further burden of self-sacrifice, have remained with us to the end.

To the gentlemen who come to us as new members, we bid a hearty welcome, and express the wish that when our term shall have expired, the Medical Society of Virginia, the profession of this State and country, and our whole people may say to us, "*Well done, good and faithful servants.*"

Very respectfully and sincerely,

HUGH NELSON, M. D., *President.*

Legislative Committee—Drs. Walker, (Chairman), Martin, and Taylor.

Executive Committee—Drs. Robinson (Chairman), Nash, Irving, Taylor and Nelson, (last two *ex officio.*)

INSTITUTIONS REPRESENTED BY THE APPLICANTS BEFORE THE MEDICAL EXAMINING BOARD OF VIRGINIA, FROM THE ORGANIZATION OF THE BOARD, January 1st, 1885, to Sept. 5th, 1889.

	Total number of applicants for examination from each institution.	Total number awarded certificate on first examination.	Total number rejected on first examination.	Rejected applicants appearing for exam'n in 2d time.	Certificates awarded on 2d examination	Rejected 2nd time.	Rejected applicants appearing for exam'n in 3d time.	Rejected 3rd time.	Incomplete examinations, withdrawals or otherwise.
Medical College of Virginia	64	54	8	3	3	..	.....	....	2
University of Virginia—Medical Department	42	41	1	....	....	....	.....	....	....
College of Physicians and Surgeons, Baltimore, Md.	41	27	12	6	4	2	.....	...	2
University of Maryland—Medical Department, Baltimore	51	33	18	3	2	1	1	1	....
Washington University, Baltimore	1	.....	....	.....	....	....	.....	....	1
Baltimore Medical College, Maryland	3	.....	2	.. ..	.....	.....	...	....	1
Baltimore University—School of Medicine	2	....	2	....	....	....	.....	....	.....
Jefferson Medical College, Philadelphia, Penn	17	10	7	2	2	....	....	.....	....
University of Pennsylvania, Medical Department, Philadelphia	2	2	.....	...	....	.....	....	.....	....
Medico Chirurgical College, Philadelphia, Penn	1	....	1	1	....	1	1	1	....
Hahnemann Homœopathic Medical College, Philadelphia, Penn.	2	2	...	.....	....	....	....	....	.....
Bellevue Hospital Medical College, New York	6	5	1	1	1	.....	.....	.....	....
University of the City of New York—Medical Department	9	7	2	1	.. .	1	....	....	....
College of Physicians and Surgeons, New York	4	4	.....	..	....	.....	....	.....	.....
Geneva Medical College, New York	1	1	....	....	....	...	.....	.....	.....
Howard University, Med. Department, Washington D.C. (colored)	9	2	7	4	....	4	....	.....	....
National Medical College, Washington, D. C.	1	....	1	.....	....	....	....	....	.....
University of Georgetown, D. C., Medical Department	1	1	....	...	.....	.....	.....	....	....
Louisville Medical College, Kentucky	3	1	2	....	.....	....	.....	.....	....
Hospital Medical College, Louisville, Ky.	4	3	1	.....	....	.....	.....	....	....
Kentucky School of Medicine, Louisville	2	2	....	....	.....	....	....	.....	.....
University of Louisville, Ky., Medical Department	2	1	1	... ..	.....	....	.....	...	....
University of Tennessee—Medical Department, Nashville	1	1	.....	....	....	....	.....	....	.....
Vanderbilt University—Medical Department Nashville, Tenn.	3	2	1	1	1	....	....	..	....
Detroit Medical College, Michigan	2	1	1	1	1	...	....	.....	....
University of Michigan—Medical Department, Ann Arbor	2	2	....	....	....	....	....	....	....
St. Louis Medical College, Missouri	1	1	....	....	.....	..	....	....	....
Columbus Medical College, Ohio	3	1	2	1	1	.....	.....	....	....
Cincinnati Medical College, Ohio	1	.....	1	.....	....	....	....	....	.....
Cleveland Homœopathic Hospital Medical College Ohio	2	2	.....	....	....	.....	....	...	....
Leonard Medical College, Raleigh, N. C., (colored)	4	3	1	.....	....	....	....	....	....
Medical College, State of South Carolina, Charleston	1	.....	1	1	1	....	...	.....	.....
Heidelburg, Germany	1	1	....	.....	.....	....	.....	....	....
St. George Hospital, London, England	1	1	....	....	....	.....	....	....	....
King's College, London, England	1	....	1	...	....	....	....	....	.....
Colleges unknown. (Record not sent by Examiners)	4	3	....	.....	....	....	....	....	1
Non-Graduates	18	6	10	....	....	.....	....	....	2
Totals	*313	*220	*84	25	16	9	2	2	7

* While from the total of the first column, it would appear that there were 313 applicants, 5 of these each held diplomas from two institutions, thus making the real total number of applicants 308; four of the five applicants received certificates—thus making the total number awarded certificates 216 (second column); one of the five was rejected—thus making the total number rejected, 83 (third column).

STANDING IN EACH SECTION OF THE APPLICANTS REJECTED SEPT. 4TH AND 5TH, 1889, AND THE COLLEGES FROM WHICH THEY RECEIVED DIPLOMAS.

The standard of requirements for license is an average mark of 75 per cent on the whole. If, however, an applicant receives less than 33⅓ per cent. in any one of the eight Sections, he is rejected.

[This Table is introduced solely for the purpose of indicating the branches of study in which the greatest deficiencies of preparation of the applicants are most noticeable. In addition, it should be remarked that had it been required to rate the applicants on ordinary correctness of English grammar, at least one third of those who passed satisfactory examinations on the required branches of medical study would have received very low markings, and far more than one-half of those rejected showed in their examination papers lamentable ignorance of English composition, spelling, etc.]

Nos. with which examination papers were signed.	INSTITUTIONS OF GRADUATION.	Chemistry.	Anatomy.	Hygiene and Med. Jurisprudence.	Physiology.	Materia Medica and Therapeutics.	Obstetrics and Gynæcology.	Practice.	Surgery.	Aggregate.	Average.	Remarks.
2	Medical Department, University of Maryland	57½	56	90	37	87	90	75	94½	587	73 3	
15	Medical Department, University of Maryland	59	35	90	33⅓	83	78	79½	75	533	66.6	
17	Medical Department, University of Maryland	32	50	72	30	42	80	75	75	456	57	
21	Medical Department, University of Maryland	50	14	80	30	66	90	60	44	434	54.2	
23	Medical Department, University of Maryland	75	25	90	20	74	69	75	73	501	62.6	
25	Washington University, Baltimore	33⅓	31	.....	10	...	.....	.....	.....	.....	....	withd'w
3	Baltimore University, School of Medicine	37½	60	80	40	83	63	75	80	518½	64.7	
6	Baltimore University, School of Medicine	29	65	80	33⅓	92	76	75	90	540⅓	67.5	
5	College Physicians and Surgeons, Baltimore	60	65	80	30	75	78	55	100	543	67.8	
24	College Physicians and Surgeons, Baltimore.	26	..	.....	....	....	.....	.....	....	.....	....	withd'w
7	National Medical College, Washington, D. C.	43½	50	96	55½	80	80	75	90	570	71.2	
9	Jefferson Medical College	32½	61	70	22	83	85	75	85	513½	64.1	
13	Jefferson Medical College	43	38	75	20½	88	80	82	80	506½	63 3	
22	Hospital Medical College, Louisville Ky.	8⅓	30	34	31	20	40	33⅓	33	229	28.6	
8	King's College, London, England	52	85	98	30	73	65	67	94	564	70.5	
10	Non Graduate	54	75	95	70	55	76	75	90	590	73.7	
20	Non Graduate	63	50	70	50	73	90	83	90	569	71.1	
26	Non Graduate	7	2	42	2	35	20	.....	66	174	21.7	

INSTITUTIONS REPRESENTED BY THE APPLICANTS WHO CAME BEFORE THE MEDICAL EXAMINING BOARD OF VIRGINIA, IN SESSION IN RICHMOND, Sept. 4th and 5th, 1889.	Total Number Applicants from each College.	Total number Applicants Licensed.	Total Number Applicants Rejected.	Incompleted Examinations by Withdrawals.
University of Virginia	4	4	.....	.....
Medical College, State of North Carolina	1	1	.....	.....
Medical Department, University of Maryland	6	1	5	.....
Washington University Baltimore	1	.....	.....	1
College Physicians and Surgeons, Baltimore	2	.....	1	1
Baltimore University School of Medicine	2	.....	2	.....
National Medical College, Washington, D. C.	1	.....	1	.....
Jefferson Medical College, Philadelphia	2	.....	2	.....
College of Physicians and Surgeons, New York	1	1	.....	.....
University of Michigan, Medical Department, Ann Arbor	1	1	.....	.....
Hospital Medical College, Louisville, Ky	1	.....	1	.....
King's College, London, England	1	.....	1	.....
Non Graduates	3	.....	3	.....
Total	26	8	16	2

The following is a register of the eight successful applicants during this examination :

Dr. Benj. May Baker, Norfolk, Va.; graduate College of Physicians of New York, 1889.

Dr. Swepson J. Brock, London Bridge, Va.; graduate University of Virginia, 1889.

Dr. W. G. Christian, Amherst, Va.; graduate University of Virginia, 1889.

Dr. E. F. Heaton, Brown's Hill, Va.; graduate University of Maryland, 1889.

Dr. John T. Hill, Roanoke, Va.; graduate Medical College of State of South Carolina, 1887.

Dr. T. J. Kirkpatrick, Lynchburg, Va.; graduate University of Virginia, 1889.

Dr. C. H. C. Preston, Abingdon, Va.; graduate University of Virginia, 1889.

Dr. E. C. Williams, (Homœop.) Richmond, Va.; graduate Ann Arbor Medical College, (Homœop.) 1889.

The highest total per centage of marks of any of the above was 91.

The lowest total per centage of marks of any of the above was 76.04.

TRI-STATE MEDICAL ASSOCIATION OF ALABAMA, GEORGIA AND TENNESSEE.

First Day—*Morning.*

Pursuant to a call issued by Dr. Frank Trester Smith, of Chattanooga, and others, the first annual meeting of the Association convened at the Chamber of Commerce in the city of Chattanooga, Tenn., on Tuesday, October 15, 1889. The meeting was called to order by Dr. E. B. Wise, President of the Chattanooga Medical Society, after which Rev. Dr. Bachman offered prayer. In behalf of the profession of Chattanooga, Dr. G. W. Drake delivered an eloquent address of welcome.

The Association then proceeded to the transaction of business, Dr. E. B. Wise, of Chattanooga, Tenn., being unanimously made temporary Chairman, and Dr. F. T. Smith, of Chattanooga, Tenn., temporary Secretary. The *Committee on Constitution and By-Laws,* consisting of Drs. Andrew Boyd, of Scottsboro, Ala.; Edge, of Ga.; and Barber, of Ten-

nessee, was appointed. And *on Credentials*, Drs. Cowan, of Tennessee; J. M. F. Myers, of Tryon, Ga.; and J. R. Tarrant, of Fackler, Ala.

The Association then adjourned until 2 P. M., to witness some practical *demonstrations with the microscope* by Dr. James E. Reeves, of Chattanooga.

Afternoon Session.—The meeting was called to order at 2 p. m. by the temporary Chairman, and on motion, Dr. J. B. Cowan, of Tullahoma, Tenn., was unanimously elected *President*. The following *officers* were then elected: First Vice-President, Dr. A. Boyd, of Scottsburg, Ala.; Second Vice-President, Dr. James B. Edge, of Demond, Ga.; Third Vice-President, Dr. L. P. Barber, of Tracy City, Tenn; Treasurer, Dr. B. S. Wert, of Chattanooga, Tenn.; *Secretary*, Dr. F. T. Smith, of Chattanooga, Tenn., to whom is largely due the credit of organizing the Tri-State Medical Association.

At this juncture the first paper, entitled "*The Physiology of the Heart and its Valves*," was read by Dr. William L. Gahagan, of Chattanooga, Tenn. After noting most minutely the peculiarities of the heart as a muscle, Dr. Gahagan proceeded to the consideration of the cardiac sound, both from a causative and clinical standpoint. The appreciable phenomena of the heart's action, pulse, impulse and sound were explained in detail. After having explained the causes of the equilibrium of the circulation, Dr. Gahagan dwelt at some length upon the heart's nervous supply, advancing a number of theories, based upon experiments, that were uniquely original and tenable.

The paper was discussed by Drs. G. W. Drake, J. E. Purdon, James E. Reeves and J. B. Cowan.

"*The Importance of the Microscope in the Practice of Medicine*," was the title of an intensely interesting and practical paper by Dr. James E. Reeves, of Chattanooga. Numerous cases pointing out the necessity of a knowledge of microscopy were cited. This paper, as its predecessor, excited much enthusiastic interest; it was discussed by Drs. Purdon, Townes, Lynch, Baxter and Barber.

Dr. J. E. Purdon, of Cullman, Ala., reported

A Case of Fracture of Skull in an Old Man--Recovery.

The man was 65 years old, and the interest in the case lay in the fact of recovery at that age from such an extensive fractures the opening after the removal of bone was three inches. The fracture was over the third convolution. The loss of memory of names was a marked symptom from which the patient has only partially recovered.

The discussion, participated in by Dr. G. A. Baxter, E. T. Camp, W. L. Gahagan, J. F. Lynch, J. B. Cowan, P. B. Green, W. B. Wells, Jas. Grange, J. E. Reeves, and Frank Trester Smith, was largely on the location of different centres of the brain and the effect and symptomatology when injured and the use of the trephine. Dr. Baxter related a case in which there was an *anomalous distribution of the anterior meningeal branch of the middle meningeal artery*, which was wounded while trephining for compression caused by a blood clot. The hæmorrhage was controlled by pressure: the plug of bone having been inserted later, the blood clot broke down and was discharged. There was good union of the plug of bone and recovery.

This paper elicited considerable discussion from Drs. Baxter, Camp, Gahagan, Green, Wells, Lynch, Grange and Smith.

After the reading of telegrams from Drs. Robert Battey, Holmes, Howell, Binford, and McRae, expressing sympathy and hearty co-operation in the movement to organize a Tri-State Medical Association, the session was adjourned until 8 p. m.

Evening Session.—Dr. A. Boyd, of Scottsburg, Ala., read a paper on "*Croupous Pneumonia*"; it was a creditable effort, and the discussion was a spirited one.

Dr. Max Thorner, of Cincinnati, O., read a paper on

Imaginary Foreign Bodies in the Throat.

It is not an unfrequent occurrence, the Doctor said, that people complain of foreign bodies in their throats, existing only in their imagination. Many practitioners have, in the early days of their practice, to learn, that it is sometimes rather difficult to deal with patients of this kind. The speaker divided cases of this kind into three different classes: (1.) Cases, where a foreign body found its way into the air-passages, or the œsophagus at some time or other, without remaining there, but leaving to the patient the sensation of being located somewhere in this region. (2.) Cases, where no foreign body ever got into the throat, but where some pathological condition of the throat imposes upon the patient the sensation of a foreign body. (3.) Cases, where neither of these causes can be made responsible for the presumption—where no pathological change can be detected in the region under consideration, and where the sensations of the patient are either reflex in character, produced by some more or less remote ailment as, for instance, in cases of indi-

gestion, or where the trouble is of a purely neurotic character.

In considering these three classes, we must first establish the fact if a foreign body really found its way into the throat; and if so, we must ascertain where it is. Foreign bodies in the air-passages make themselves known to the examining physician, in most cases, by signs not to be mistaken; and such substances in the naso-pharynx, pharynx and œsophagus can be detected, in almost every case, by our ordinary means of examination. If, after careful, and eventually repeated examinations, we have good reason to think, that any substance that may have entered the throat, has been dislodged since, we will in many cases succeed in convincing the patient of this fact, especially if we have to do with intelligent persons. This is the more the case, when we wait until slight lesions, produced by the foreign body, will have had opportunity to heal. At times, however, patients cannot be satisfied; that the foreign body is not more in the throat. The speaker referred to a case in his practice, where a man, whilst eating rapidly, got a piece of chicken bone into his naso-pharynx. Although this had been removed by the family physician, there was no possibility of convincing him of this fact. He would insist that he felt still a sharp piece of bone in his nose, and failing to get relief from this distressing sensation, became finally decidedly melancholic. At last the doctor gave him bromide of potassium, telling him at the same time, that he would try to dissolve the bone by the internal use of medicine, which idea the patient grasped enthusiastically. The result was, that he was entirely relieved of his imagination in eight weeks. The speaker advocated the exhibition of some innocent deception in cases of this kind, where the patients threaten to become victims of their fixed ideas.

In the second class, we find patients, who have the sensation of a foreign body in their throat on account of some pathological conditions. Such conditions are: Enlarged tonsils and uvula, granular pharyngitis, enlarged circumvallate papillæ and lymphoid nodules on the back of the tongue, varicose veins at the back of the tongue, or on the uvula, neoplasms, etc. The removal of these conditions will remove the sensation of a foreign body in the throat.

The most difficult group of cases regarding treatment, and frequently unsatisfactory, as to a cure, is that where either a remote cause is responsible for the sensation of a foreign body, or where nothing can be found to which we may at-

tribute the troublesome sensation. If we are able to detect the remote cause of the complaint, the latter being only a reflex symptom, we need only direct our attention to the primary cause, in order to effect a cure. That was the case with a lady patient of the speaker, who insisted on having a piece of a nutshell located in her throat. The latter was in perfect condition. She was afterwards treated for indigestion that co-existed at the same time, and complained no longer of the foreign body. If, however, nothing of this kind can be found, we must consider the complaint a neurosis, as for instance the globus hystericus, etc. Though in many cases of this kind, pathological conditions, as enumerated above, are the cause of the supposed neurosis, there still remain a number of cases where this does not apply; where the trouble appears to be of a purely neurotic character. And these cases are more or less unsatisfactory as regards a permanent cure.

This paper was discussed by Drs. Steele, Smith, Cooper, Holtsclaw, Lynch and Gahagan.

Adjourned to meet at 9:30 a. m. to-morrow.

WEDNESDAY—*October* 16—*Morning.*

Dr. J. B. Cowan called the meeting to order, opening the same with prayer.

An auditing committee, consisting of Drs. G. A. Baxter, R. J. Trippe and E. T. Camp was appointed. The committee of arrangements for the second annual meeting was appointed, and is as follows: Drs. J. R. Rathmell, W. C. Townes and Wm. L. Gahagan, all of Chattanooga.

On motion it was decided to appoint chairmen of various sections, and the following departments were created:

State Medicine, Dr. P. D. Sims, of Chattanooga; *Practical Microscopy*, Dr. James E. Reeves, Chattanooga; *Otology*, Dr. Andrew Boyd, of Scottsburg, Ala.; *Ophthalmology*, Dr. N. C. Steele, of Chattanooga, Tenn.; *Obstetrics*, Dr. W. T. Blackford, of Graysville, Ga.; *Gynæcology*, Dr. R. J. Trippe, of Chattanooga, Tenn.; *Materia Medica and New Remedies*, Dr. Junius F. Lynch, of Chattanooga, Tenn.; *Surgery*, Dr. G. A. Baxter, of Chattanooga, Tenn.; *Experimental Physiology*, Dr. William L. Gahagan, of Chattanooga, Tenn; *Laryngology*, Dr. Max Thorner, of Cincinnati, Ohio; *Practice*, Dr. G. W. Drake, of Chattanooga, Tenn.; *Psychical Research*, Dr. J. E. Purdon, of Cullman, Ala.

Dr. J. A. Long, of Long's Mills, Tenn., read a paper on

"Typhoid Fever," with a Report of Over Five Hundred Cases Occurring in His Practice.

Dr. Long said that the invasion of the disease is insidious. During the initial stage the tongue is white, smooth and glossy; tip and edges red, and trembling when protruded. Subsequently, many changes take place, such as changing to a speckled appearance. The pulse is *dicrotous* in the beginning and weak; and this is characteristic of typhoid fever. Headache comes on during the second week and lasts ten days. Rose-colored eruption over the abdomen is invariably present. Muttering delirium occurred in all forms and cases of the disease. The disease is both infectious and contagious. It may be a mixed fever, such as he witnessed in Polk Co., Tenn. There was no tympanites in those cases, but the pulse had a reacting beat. The cause of the disease was filth about the old barns and out-houses. The diagnosis is so plain and easy that there is no disease that is likely to be mistaken for it: yet there are some cases that have no well-marked typhoid symptoms. There is little doubt that the first cases in a family arise from the influence of infection; in the later ones, the infection acts as a predisposing cause to the contagion of the first cases. He has no faith in the germ theory. It is the fever that kills. The report covers 505 consecutive cases, with a death-rate of less than *two per cent.* His main reliance in treatment is turpentine in one drop doses every hour, whether to combat ulceration in the glands of the small intestine, which is one of the earliest symptoms, or to prevent the ulcers from getting the headway. Turpentine in this dose is a diffusive stimulant, and is used to slow ulceration, or as *a disinfectant* to microbes. He does not pretend to say how it always acts.

Dr. James E. Reeves, of Chattanooga, said: "After the storm of applause to this paper, and so many individual expressions of unqualified approval from all parts of the house, it is, indeed, a most unwilling service, a most unpleasant duty, to interrupt so much praise by words of criticism; but "truth is in things, not in him who observes them."

This paper, notwithstanding the long experience and high professional standing of the essayist, is defective in many particulars. As a clinical portrait of enteric or typhoid fever it is so faulty, so unnatural, that those familiar with the original would scarcely recognize the specific picture; and I can only account for the warm commendation it has received on the ground that it is not an easy task to follow

the reading of a paper, on any subject, with such correct understanding of its value as to enable the hearer to discuss it fairly and critically. My excuse for the criticism I shall offer is that for 40 years I have been a student of enteric or typhoid fever; and by such training am able, I think, to compare the picture just presented with the one which I myself long ago gave to the profession,* and which to day I could not improve, notwithstanding far greater clinical experience gained during the last 25 years.

I do not know a typhoid fever in which the "headache comes on during the second week"; a dicrotous pulse during the initial stage; without cough and bronchial râles; muttering delirium in all cases; where the *cause* of the disease is "filth about old barns and out-houses"; where "*the first cases, in a large family, arise from the influence of infection, and in the later ones, the infection acts as a predisposing cause to the contagion of the first cases*;" and where "ulceration" of the glands of the small intestines is one of the earliest symptoms." This is wonderful! Dr. Long has so far modified the turpentine plan of treatment given by the never-to-be-forgotten master in the theory and practice of medicine, the late Prof. Geo. B. Wood, that he recommends but *one drop* of turpentine every hour, "to prevent the ulcers from getting headway?" He relies upon this dose of turpentine as a "diffusive stimulant, to slow ulceration, or as a disinfectant to microbes!"

He contradicts himself in some of his statements, *e. g.*, after saying "the diagnosis is plain and easy when the history, symptoms, etc., are studied," he then declares that "some cases have no well-marked typhoid symptoms."

Finally, he boasts that his fatal cases have not exceeded *two per cent.!* And this is the answer that he himself makes to the question that naturally suggests itself—were his cases all genuine typhoid fever?

I am sorry to have felt myself compelled to make these remarks; but the demands of medical truth are inexorable, and I must beg that my criticism shall go on record with the paper."

Dr. Drake said, the paper contained the most complete pen picture of the disease which had ever been presented to his mind, and, barring some confusion in regard to infec-

**A Practical Treatise on Enteric Fever: its Diagnosis and Treatment, being an Analysis of 135 Consecutive Cases, Derived from Private Practice, and embracing a Partial History of the Disease in Virginia.* Philadelphia, J. B. Lippincott & Co., pp. 200. 1859.

tion and etiology, merited high commendation. Much interest attached to the paper as being the result of the observation of over five hundred cases in a practice of forty-five years in the same locality. Dr. Long gave his own observations of his own cases without reference to text books or the experience of others. Turpentine, quinine, alcohol, milk and home-made beef tea were the medicines and foods which he (Dr. Drake) used.

Drs. Drake, Lynch, Gahagan, Purdon, Barber, Cooper, A. Boyd, McReynolds, Holtzclaw and Cowan favorably discussed the paper.

Dr. W. C. Townes, of Chattanooga, read a paper on

Hypnotism and Suggestibility.

The author spoke of the trickery of charlatanism which formerly pervaded this line of thought and the actions of the people, and then showed that the subject is now nearly placed on firm, scientific foundations. He then reviewed the ideas advanced by the recent Congress in session in Paris. He showed that the phenomena of moving tables and such like were real and not imaginary; that certain of our motions were made unconsciously, dependent upon complicated brain action, and that they are also dependent upon the double personality of our being, which explains the condition of sub-consciousness in the low degree of intensity of external impressions which produce the sensations. He admits that the facts as stated may bear further investigation. He then defines hypnotism as a peculiar psychical condition that we are able to create in the subject and which increases his suggestibility.

From a medical standpoint he aims to increase this suggestibility, and to place the nervous system in such a state that suggestion will incite it to perform acts that will lead on toward a cure. Reference was made to homœopathy and miraculous waters and granules, etc., as acting by suggestion, often resulting in cures.

The idea of suggestion is carried to the treatment of children, showing a vicious and degenerate disposition, and its use as a therapeutic means in various mental diseases, and cited instances of cases where hynotism has done good, and conditions in which it may be of benefit as a therapeutic agent, etc.

The author closed by citing the considerations adopted by the late Congress, that hypnotism should be under authoritative administration and should be taught in medical schools.

The Sphygmograph as a New Re-Agent in Psychical Research.

This paper, presented by Dr. J. E Purdon, of Cullman, Ala., had for its object the advancement of a claim to the discovery of the fact that the physical influence of one nervous system upon another, at a distance, and unconnected by any of the ordinary physiological bonds, could be demonstrated by the aid of the sphygmograph. Dr. Purdon claimed to have identified, in many instances, forced relationships of pulse tracings from the fact that certain neurotic subjects had departed from their usual trace forms to conform to those of individuals with a more dominant nervous system. Dr. Purdon further argued that this was a first step towards the proof of physical connection between the higher centres of different brains, which the progress of modern psychology obliges us to acknowledge in the face of the now well established fact of psychical community, mind-reading, sympathetic sensibility, etc. He argued against the fundamental principles of materialism, by falling back upon the possibilities of the supra-conscious intelligence and by regarding mind and matter as but different aspects of the one underlying reality.

Dr. G. W. Drake, of Chattanooga, said that we have heretofore been taught that nerve impulses are confined to the individual in whose organism are contained the cerebro-spinal and ganglionic nervous systems. In Dr. Purdon's paper, the startling thought is presented that nerve impulses (or nerve fluid) may escape from the body of one individual, and, like electricity passing through the intervening media, atmosphere, or even a stone wall, penetrate the body of another individual. These impulses from the cardiac centres of one individual may pass to those of another, or to the nerves leading from them, and so control the pulse as to cause the sphygmographic tracings of the two individuals to be essentially identical. These impulses—or currents of fluid—as instanced in the cases of the prisoners cited by the Doctor, passed through prison walls and affected individuals in separate cells. This fluid must be more subtile than electricity, since the latter might have shattered the walls, while there was no trace left in the walls by the passage of the nerve impulses; but the Doctor shows traces of the sphygmograph claimed by him to have been caused by impulses which passed through the walls. There were peculiar noises in the room, where Dr. Purdon made these observations on the three prisoners, like rappings on tables—noises produced by the passage of this subtile fluid (nerve im-

pulses) through non-conducting media, which would be encountered here and there in the atmosphere of the room, little thunders, as it were, analogous to the thunder of lightning. Dr. Purdon appears to teach that currents of thought may pass from one brain to another, as in mind-reading, and currents of painful impulses from a parturiant woman to a sympathetic spectator; and during pregnancy the husband may really suffer, by transference, the nausea which properly belongs to the wife.

If Dr. Purdon's theories be true, how may we know that our thoughts are our own, and not currents of impulses from the brains of others? Dr. Drake believes that what he has said are legitimate inferences from the theories advanced by Dr. Purdon.

As to "*Hypnotism and Suggestibility*," presented by Dr. Townes: The brain centres are kept awake and active by impulses which flow in through the five senses, and also by thoughts or ideas from the mind—a separate existence from matter. Impulses may be conducted by nerves from the periphery to any or all of the brain centres, and from the *mind* to the brain centres, or sub-conscious impulses may originate in these centres.

Now, then, if these impulses do not impress certain of these centres, either by impairment of the centres so as not to receive impulses or impairment of the nerves, so as not to conduct them or the shutting off of the stimuli, so as not to act on the peripheral terminations of the nerves, the centres thus treated are in a state of hypnotism, while other centres may be awake and active. Thus you see there may be localized hypnotism. To become an expert in the practice of hypnotism, it is necessary to study the various methods of temporarily suspending the action of the brain centres, or retarding their actions. If you learn to control a normal action in the subject, by the same means you may be enabled to modify an abnormal action, which is producing some functional disturbances. The quieting of the fretful babe by the mother's gentle patting and sweet lullaby is a species of hypnotism, and later the aches and pains of the child are cured by the mother's kisses—they cure by suggestion. The method by suggestion is a species of faith cure, and depends, in a great measure, on the credence of the patient in the promises of the physician or in the peculiar appliances which are used to effect the result. Suggestibility, as I understand it, means a susceptibility to certain psychical influences, and may be increased by the hypnotic

state; the teaching also is that suggestibility may be a factor in the production of the hypnotic state.

Hypnotism and suggestibility are old ideas clothed in the habiliments of science, or scientific explanations of the practices of charlatans. Let us beware how we handle the tools of the charlatan, lest we give an endorsement to methods which we so strenuously condemned in the near past. Psychology is destined to work great revolutions in medicine, but let us take our soundings often as we wade into deep waters.

Adjourned until 1:30 p. m.

Afternoon Session.—The leading paper of this session was one entitled "*An Interesting Laparotomy*," by Dr. Junius F. Lynch, of Chattanooga. Those indications and diseases which call for this operation were most clearly pointed out by Dr. Lynch. Owing to the difficulties of the case reported, it was the undivided opinion of the Association that this young surgeon had achieved a most praiseworthy reputation as a skillful operator and careful diagnostician.*

Case of Ovariotomy, etc.

Dr. R. J. Trippe, of Chattanooga, related a case of ovariotomy of Dr. J. B. Cowan's of cystic tumor of the right ovary in a woman aged 28; single; domestic. Abdomen very much enlarged but symmetrical. The diagnosis of cystic tumor of the ovary was made for which the Doctor operated. A multilocular cyst of the right ovary was found, which was removed with the tube. Two of the cysts had been ruptured and it was estimated that there was a hundred pounds of fluid in the peritoneal cavity. The patient had an uninterrupted recovery and was allowed to go out of the room in three weeks. She has remained well since, and is earning her own living.

He also reported a case in which he had performed *laparotomy for stab wound* of the abdomen. The man's age was 38. The transverse colon was incised in two places. The incisions in the gut were oblique. There was an escape of fecal matter from the wounds which were stitched with catgut. The intestines had protruded from the wounds and had got in the mud, and afterwards been covered with a blanket, which had been used for days to lie on. The exposure had been for about an hour. The incision in the abdomen was closed with a three line suture. The next day there was a temperature of 101½, which lasted but a short time. The man was up in two weeks.

*(We publish this report in full under the department of Clinical Reports.)

Dr. Cooper Holtzclaw, of Chattanooga, presented a paper entitled

Report of Two Cases of Laparotomy, with a Specimen.

Case I. Female—married—æt. 20. History of pelvic cellulitis, two or three years previous, which was followed by ascites, which was evacuated several times. The uterus was immovable, and the tumor, size of hen's egg to right of Douglas' cul-de-sac and in rectum, quite painful to touch and on defecation. Diagnosis ovarian cystic degeneration. Laparotomy 8th June, 1888; both tubes and ovaries adhered to all contiguous tissues: as many adhesions as possible were broken up and diseased tissue removed. Recovery slow, but at present date has good health.

Case II. Female, æt 19, unmarried. History, 1st January, 1888, noticed small floating tumor in right iliac region, which grew larger, until it was the size of a woman at full term; considerable dyspnœa irregularity of menstruation, anorexia, emaciation, xyphoid cartilage dislocated and painful; uterus normal, urine normal, heart rapid and weak. Diagnosis—parovarian cyst. Laparotomy October 1, 1889. Removed large sac containing two gallons of fluid and colloid substances. Pedicle small, short and attached to parovary. Patient discharged on fifteenth day.

Dr. Andrew Boyd, of Scottsboro', Ala., read a paper on

Croupous Pneumonia,

In which he briefly reviewed and discussed the ætiology at length, holding the view that the disease is due to a specific germ, citing cases to prove his position. He thinks the diagnosis can only be made from physical signs, and that the rusty sputum and herpes labialis are pathognomonic. The disease runs a definite course, from seven to fourteen days. He mentioned four methods of treatment: Depletory, sedative, stimulating and mercurial; and reasoning from analogy, he concludes that the best plan is to keep down the fever and stimulate the heart.

The paper was discussed by Drs. G. W. Drake, J. E. Reeves, P. D. Sims, E. T. Camp, J. E. Purdon, C. N. Cooper and J. B. Cowan. Dr. Drake called attention to the importance of keeping in mind the difference between fibroid phthisis and tubercular phthisis as sequelæ of croupous pneumonia.

Adjourned until 8 p. m.

Evening Session.—Dr. Frank Trester Smith, of Chattanooga, Tenn., reported

A Case of Persistent Pupillary Membrane.

Male—æt. 18. Membrane in right eye consisted of four threads attached to the anterior surface of the iris at the greater circle, and to a wedge-shaped opacity on the anterior surface of the lens capsule. One pair ran upward and outward and were of equal thickness throughout, looking like fine threads; the other pair ran downward and outward from the opacity, making a right-angle with the first pair. There was a fan-shaped enlargement at the point of attachment to the iris. There was hypermetropic astigmatism. The other eye was normal, but there was a small amount of hypermetropia.

No treatment was recommended.

Dr. Reeves inquired whether it might not have been the result of some previous inflammation?

Dr. Smith said that it might, but that the inflammation must have taken place in utero, causing the pupillary membrane to thicken and grow fast to the capsule, and it had failed to be absorbed at the proper time.

Dr. Max Thorner agreed with Dr. Smith as to the diagnosis and treatment, and related a case in which an operation was attempted without any good result.

The paper was illustrated with two drawings—one with the pupil dilated with atropine.

A motion by Dr. Junius F. Lynch, to appoint a committee looking to the regulation of the practice of medicine and surgery, was lost.

The minutes of the meeting were read and approved.

A membership of over a hundred has been registered. Membership in this Association is restricted to regular graduates of Medical Colleges in good standing.

Resolutions were adopted thanking all who had in any way contributed to the success of the meeting.

Adjourned to meet October 21, 1890, at Chattanooga, Tenn.

Banquet after adjournment.

Heyden's Viburnum Compound.

Our attention has been called to the following sentence in Dr. Marion Sims' edition of *Hewitt's Disease of Women*, which is worth recording for journal readers: "For severe dysmenorrhœa I have frequently found Heyden's Viburnum Compound of great service, given in teaspoonful doses (in hot water, as a tea), every hour for three or four hours." This experience is confirmed by that of hundreds of practitioners all over the country.

Book Notices.

Anæsthetics, Ancient and Modern. By GEORGE FOY, F. R. C. S., Surgeon to the Whitworth Hospital, Drumcondra, etc. London: Baillière, Tindall & Cox. 1889. Cloth. 8vo. Pp. 175. (From Publishers).

On opening this book, our attention is first drawn to the dedication—as deserved because of his valued contributions to this very subject, as it is complimentary to the nation and the section he represents: "To Hunter McGuire, M. D., LL. D., (Richmond, Virginia), Fellow and Past President of the American Association of Surgeons; Late Medical Director of the "Stonewall" Jackson Corps, (2nd) Army of Northern Virginia, C. S. A., whose numerous, brilliant and successful operations—many of which were performed under great difficulties—have made his name honored and esteemed in two Hemispheres, this book is dedicated as a mark of respect for his great ability, as both a military and civil surgeon, and as a token of personal friendship, by the author."

The practical part of this intensely interesting work is devoted to the consideration of the physiological action, therapeutic uses and modes of administration of anæsthetics. The author expresses his preference for chloroform as the general anæsthetic, and well supports the preference by the record of facts. He is careful, however, to speak of the dangers of this agent so as not to mislead any into a reckless resort to any anæsthetic. While he gives an account of the more celebrated anæsthetics in use from the earliest time to the discovery of nitrous oxide, he devotes special practical attention to nitrous oxide, ether, chloroform and cocaine. Our limits for notice prevent a review. Hence, in summarizing an opinion, we would say that, barring a number of errors of spelling proper names (as M'Guire, Chisholm, Wiehite, etc, for McGuire, Chisolm, Wilhite, etc.) and other such minor errors, Mr. Foy's work will ever remain classical in references to the history of anæsthetics, practical in its directions as to the choice and manner of using them, and deserves a high position in the esteem of every surgeon for much information that we have not seen so well collected together in one volume. Its excellent index facilitates ready reference to subjects and to authorities.

Editorial.

Medical Examining Board of Virginia.

The recent session of the Board held in Roanoke, Va , on the 3rd, 4th and 5th of September, was one of the most important in its history. It was important, as the large number of members present shows their continued interest in the arduous work they have so faithfully discharged. It was important, as the subjoined synopsis of the work of the Board shows that it is immovable in its demands that the colleges shall elevate their standard of proficiency until it is on the plane of that established by the Board. It was important, as the result of the examination shows that many of the colleges have not as yet yielded to the influences of such boards, but continue to send forth, armed with their tokens of proficiency in the form of diplomas, men who are totally unfit to assume the duties of practicing physicians.

Examining Boards have two important missions intrusted to them; one is to keep out of the field of their jurisdiction incompetent men, protecting the public from the dangers of such practitioners, and the profession from the lowering influence of such members. Another and no less important part of their mission, is their influence in elevating the standard of medical education. The first mission, as indicated by us has, we think, been by the Virginia Board fulfilled to the satisfaction of the most exacting. When we announce that there were twenty-six applicants before the recent session of the Board, and of that number sixteen were rejected, two withdrew and eight were granted permits, we must conclude that the work of the Board was very carefully done, and that we may rest assured that graduates of the low-grade medical schools will find the Virginia Board an impenetrable barrier between them and the people of Virginia.

The fact, however, that eighteen of the twenty-six applicants failed to answer satisfactorily seventy-five per cent. of the questions propounded by a board composed of active practitioners, who are supposed to know what knowledge a man needs in the every day walks of his professional career, is sufficient evidence that Medical Examining Boards have not as yet succeeded in impressing their influence upon the medical teaching of the country, and a due appreciation of this fact prompted the Virginia Board to request the co-operation of the Medical Society of Virginia in their search for other and more potent means to secure the complete fulfillment of their mission.

In order to show the Society something of the ignorance, as shown by some of the papers presented to the Board, a few of the questions and answers were read to the Society, and from the samples we reproduce from memory no one will wonder that the Society should by resolution instruct the Board to publish such papers with the names of the colleges from which the writers received their diplomas.

Question an Anatomy.—"Give general and descriptive anatomy of the stomach?" *Reply*—"The stomach is the organ where the food is digested at. It is a very extensive organ."

Question—"Describe the subclavian artery?" "It is a very important artery which passes through the chest"

Question—"Give diagnosis of dislocation of femur on dorsom of ilium." *Answer*="Don't know much about the diagnosis, but know the treatment is to amputate."

A physiological or pathological cell was defined as "a place of confinement," while such answers as "we would tampon in post partum hæmorrhage were of frequent occurrence."

The resolution passed by the Society, and as introduced by Dr. Hunter McGuire, of Richmond, reads as follows:

"*Resolved*, That the thanks of this Society be hereby tendered the Medical Examining Board of Virginia for the efficient and faithful manner in which they have performed their duty.

"As a further evidence of our support, we recommend that the Board publish such examination papers of aggrieved and rejected candidates, together with the announcement of the name of the medical college from which they received their diplomas as may be deemed by the Board necessary for the justification of their action."

Of course the names of the writers of the papers will not be published, but if any of the colleges think injustice is done, they will be furnished the names by the Secretary of the Board.

Florida Medical Examiners' Board Law.

The act by the Legislature of Florida to regulate the practice of medicine and to provide for the appointment of a State Board of Medical Examiners, approved May 31, 1889, provides for the appointment by the Governor of a Board of Medical Examiners in and for each Judicial District of Florida, to be composed of three practicing physicians, graduates of medical colleges recognized by the American Medical Association, residents of the district for

which they are appointed. Term of office four years from date of appointment. Meetings are to be semi-annually for examinations and granting certificates. Applicants for examination must present diplomas of graduation from a recognized college, and be examined on Anatomy, Physiology, Surgery, Gynæcology, Therapeutics, Obstetrics, and Chemistry. Any two members of the Board may grant certificate of qualification, and any member may grant a temporary certificate to an applicant found qualified until the succeeding regular meeting of the Board. Each certificate must be recorded in the office of the clerk of the circuit court of the county in which the practitioner may reside. Each applicant for examination is to pay the Board $10, whether the certificate is granted or not. The law does not affect those in practice in the State prior to the act, nor females who follow strictly the practice of midwifery. Penalty is fine of not more than $200 nor less than $50, or imprisonment in the county jail not exceeding six months, or by both fine and imprisonment.

The same act provides for the appointment, by the Governor, of a Board of Homœopathic Medical Examiners for the *State at large*, to be composed of three practicing homœopathic physicians, graduates of some medical college recognized by the American Institute of Homœopathy. This Homœopathic Board is to meet semi-annually in Jacksonville to examine applicants who possess diplomas from any of the colleges recognized by the American Institute of Homœopathy upon the same subjects as the Board of the regular profession, with the addition of materia medica. All other parts of the law make like requirements of both the regular and the Homœopathic Boards.

The Governor of Florida has requested Dr. R. A. Lancaster, of Gainesville, Fla., as President of the Medical Association of the State of Florida, to recommend to him three physicians from each Judicial District of the State, for appointment. This courtesy on the part of the Governor virtually places the naming of the District Board of the regular profession in the hands of the Florida Medical Association, where it should have been placed by the law.

It may be out of time just now to criticise this law, but it possesses the very serious omission of reference to examinations of the physicians their dailyin work—the practice of medicine. There is no excuse for such an omission by the Florida Legislature, especially as the appointment of a regular and a Homœopathic Board place all questions of dispute between different schools of practice out of the way.

The etiology, diagnosis, pathology, etc., of diseases are the chief studies of physicians; and, until some remedy is made by the Florida law, the certificates of qualification by the Florida Board cannot be accepted in other States having State Boards when the time arrives, as it soon will, to allow the certificates of one State Board of Examiners to be accepted by another *State Board.*

Tri-State Medical Association of Alabama, Georgia and Tennessee.

The recent meeting of the Tri-State Medical Association of Alabama, Georgia and Tennessee, was quite successful from every point of view. The attendance was larger than had been anticipated by the most sanguine, there being over one hundred present.

The work done was creditable; the papers as a rule showed thought and accurate observation; and some of them recorded new and original observations. There was not a great number of papers and this gave time for full and free discussion.

The discussions in our societies are generally the most profitable part of the proceedings.

The social features of the meeting were subordinate to the work of the Association. The members seemed to have an enjoyable time.

The most noticeable feature of the meeting was the part taken by the young men. They pressed forward in the discussions and in reading of papers.

There was another feature that excited comment and that was the very marked courtesy which characterized all of the discussions. In many of our older societies there are a few men who monopolize the time given to discussion largely, and are ready to pounce upon any who dare interfere with their prerogative, and especially if they be young men.

The Association contains some men of extended reputation, but it has enlisted many who are new to this kind of work.

The prospects are bright. The appointment of different men as chairmen of sections of the different departments of medicine to collect statistics, histories of important cases, etc., is a move toward collective investigation.

The Association meets at Chattanooga the third Tuesday in October every year. F. F. S.

Best Preparation of Eucalypti Extract.

Messrs. Sander & Sons have extensive works at Sand-

hurst, Australia, for the manufacture of their preparation, the *pure volatile* eucalypti extract (eucalyptol). According to Professor Hugo Schulz (see "Das Eucalyptusoel," Bonn), mature three-year-old leaves, in their green state, should be alone used from which to secure a genuine or a perfect product. The firm of Sander & Sons observe this injunction, and consequently their preparation gives to the physician the best guarantee possible that when their preparation is prescribed and furnished, he will get Eucalyptol proper. Samples will be furnished gratis to practitioners mentioning this journal in letters making application to Dr. Sander, Dillon, Iowa. The Meyer Brothers' Drug Co., of St. Louis, Mo., are sole agents for the United States.

The Harbaugh Veterinary Remedy Company

Has just been organized, with headquarters in Norfolk, Va., with a capital stock of not less than $20,000 nor more than $200,000. Its purpose is to manufacture instruments, medicines, etc., for the treatment of diseases, injuries, etc., of domestic animals. It was the highest of compliments to the distinguished veterinary surgeon of this city, Dr. W. H. Harbaugh, for this corporation of capitalists to insist on naming the company after him, and to make it a condition of the organization that he should be the President, with the privilege of retaining his residence in Richmond, where he has achieved eminence as a veterinary surgeon. Among other things, it is the purpose of this Company to prepare cases of medicines, appliances, etc., for sale to farmers, stock raisers, etc., accompanied by a pamphlet or book descriptive of the diseases of horses, stock and domestic animals generally, indicating the remedy that is most serviceable in given cases, and telling how to administer or apply the same. In every case, however, where the services of a graduated veterinarian can be secured, it is advised that he should be employed to attend the sick animal; and, yet, to him these cases will be serviceable, as containing those things which are most generally useful in practice. In a few weeks the Company will be ready to begin sales, when a full descriptive advertisement will appear in this journal.

Dr. John G. Skelton.

As we go to press we have the pain of announcing the sudden death of this "good physician" on October 31st, at his home in this city. A notice will appear in our December issue.

Bernd's Physicians' Register

Possesses so many superior qualities as a pocket and office list combined, that we wish specially to commend it to the favorable consideration of our subscribers, now that they must soon determine on their books for 1890. Its simplicity makes it easily kept by a child, while its methodical arrangement adapts it to all the wants of the active practitioner. We believe that but few, if any, of those who may adopt Bernd's Register will ever be willing to surrender it in future years. The accounts, as kept by the physician in this register, will be easily understood by his executor when death calls upon the doctor to lay aside the duties of the practitioner.

The Florida Location for a Physician for Sale,

Advertised for sale by Dr. W. H. Stewart, of Anthony, Fla., seems to offer first rate inducements to a physician in search of a southern home and paying practice. In the advertisement last month it was an oversight that caused omission of mention of the windmill on the place, which adds at least $500 to the value of the place. Simply as a farm, to any one, the place is cheap at $5,500, on convenient terms of payment. But when it is remembered that Dr. Stewart offers with it a practice of from $2,000 to $2,500 a year, then it becomes an attractive bargain to a physician.

The Medical News Visiting List for 1890

Has been thoroughly revised in every respect. The text portion (48 pages) contains the most useful data for the practitioner, including the latest therapeutic novelties, their doses and effects, and an alphabetical table of diseases, with the most approved remedies. The classified blanks (176 pages) are arranged to hold records of all kinds of professional work, with memoranda and accounts. Three styles are published: Weekly (dated, for 30 patients); Monthly (undated, for 120 patients), and Perpetual (undated, and likewise good for any year). Thus this List adapts itself to any system of professional accounts. Each style is in one volume, bound in handsome red leather, with pocket and a pencil, at $1.25. When desired, a ready-reference thumb-letter index is furnished, which saves many times its small cost (25 cents) in the economy of time effected during a year. A pencil erasible slate is also bound with each *List*.

Tennessee Medical Examining Board.

The new Medical Law has gone into effect. The State Examining Board has organized with T. J. Hoppel, of Trenton, Tenn., Secretary. Physicians who were in practice in Tennessee April 4th, 1889, were given until October 4th, 1889, to register with their respective county clerks. New-comers into the profession in Tennessee must appear before the Examining Board, or forward their diplomas for registration.

Obituary Record.

Dr. Gab iel McDonald,

Of Union, Monroe county, W. Va., died suddenly of heart disease while traveling along the turnpike, near his home, on September 22d, aged 62 years. He was born in Lynchburg, Va, May 10, 1827. After receiving his academic education at Hampden Sidney College, Virginia, he pursued the study of medicine in the Jefferson Medical College, of Philadelphia, from which institution he graduated Doctor of Medicine in 1851. He located at once in Covington, Va., and began the practice of medicine. In 1856 he married Miss McAllister, who died in 1869. In 1861 Dr. McDonald entered the Confederate Army as Surgeon of Twenty-second Virginia Regiment. He afterwards became General Breckinridge's Division Surgeon, and continued as such until the end of the war. He took active part in the organization of the Medical Society of Virginia in 1870. In 1876 he was the Annual Orator. In 1878 he was elected one of the Vice-Presidents, and although he removed to Union, W. Va., about 1874, he never resigned fellowship in the Medical Society of Virginia, always claiming it as his "first love." At the meeting in Norfolk in 1888, he made the report on Advances in Obstetrics. For years he was a member of the Executive Committee of the Virginia Society. His zeal for the interests of the profession was manifest alike in West Virginia. He took active part in organizing the Medical Examining Board of West Virginia, of which he was a member till his death. He was also a member of the West Virginia State Board of Health for years. He lived in the esteem, confidence and affections of all who knew him—whether as a Christian gentleman or as the good physician of his community. His remains are buried at Covington, Va., by the side of those of his wife.

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Original Communications

ART. I.—Vaginal Hysterectomy for Epithelioma of the Uterus.*

By E. E. MONTGOMERY, M. D., of Philadelphia, Pa.

PROFESSOR OF GYNÆCOLOGY, ETC.

Gentlemen,—This patient was admitted to the hospital October 31st, with the following history: Mrs. L.——, æt. 48 years, married, mother of seven children, has had three miscarriages. Labors were comparatively easy; none instrumental, excepting the last. The last miscarriage took place two years ago, to which she dates the commencement of her ill health. She has had several severe hæmorrhages during the last three years, and three times has missed one menstrual period. The menstrual flow has been considerably increased in quantity and duration. Previous to her admission, she had had a bloody flow for over a month. She has lost flesh and strength, and is pale and anæmic. Pain is not, nor has it been, a marked symptom during her illness. By a former attendant, the irregularity of the menstruation was attributed to the approach of the menopause. Her present attendant, Dr. M. J. Cummings, at once suspected the probability of malignant disease, and asked

* Clinical Lecture delivered at the Medico-Chirurgical Hospital of Philadelphia.

me to see her. Evidences of hæmorrhage were seen. The cervix was large and lacerated, the posterior lip abraded, bleeding easily, but not friable. The uterus was somewhat enlarged and retroverted, but perfectly movable. Careful examination per vaginam and per rectum disclosed no involvement of the folds of the broad ligaments, or of the retro-uterine tissues.

The diseased changes were apparently confined to the posterior lip and the uterine canal. To add to the certainty of our diagnosis, a section was removed from the posterior lip which was submitted to Prof. Laplace for microscopical examination. He pronounced it undoubted epithelioma.

We have, then, the age of the patient, the frequent and irregular bleeding, physical signs, and microscopical examination, upon which to base our diagnosis of malignant disease.

What shall be done? A number of operative procedures suggest themselves: amputation of the cervix, by the galvano-cautery, the scissors, or the knife; the high amputation of Baker, or the entire removal of the organ—the operation known as extirpation.

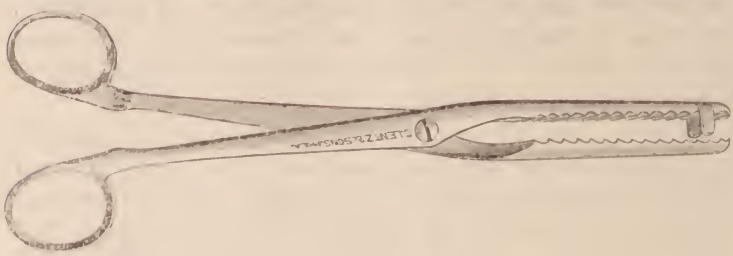
Such diseases advance by invading the tissues continuously and contiguously, rendering it difficult to determine, in any case, in how far the mucous membrane may be involved. No operation can be said to be radical or curative that does not include all the affected tissue. The probability of this is much greater with extirpation than under a partial removal of the organ. Hence we have no hesitancy when malignant disease is confined to the uterus—even though it be slight—in strongly urging the removal of the entire organ as the only justifiable procedure. Extirpation is just as absolutely indicated, with the uterus the seat of disease, as in case of involvement of the mammary gland. This patient presents a condition exceedingly favorable for operation, as the uterus is freely movable, and there are no indications of involvement of the surrounding structures. The preferable method of procedure is the removal of the organ through the vagina. The abdominal method, as suggested by Freund, was attended with a mortality of 70 per cent.; while the vaginal, in careful hands, has a mortality of between 10 and 15 per cent.

Preparatory to the operation, we have had the patient in bed, the bowels thoroughly evacuated, the vagina irrigated with an acid sublimate solution, carefully wiped free from secretion, and packed with iodoform gauze. Fortunately, there was no fragile, broken down tissue; if it had been present, we should have curetted the uterus preparatory to the use of the gauze tampon.

Operation.—Having thoroughly anæsthetized the patient, she is placed in the lithotomy position; the uterus, exposed by lateral retractors, is seized and drawn down by a strong vulsellum. The uterus is separated from the vagina by a circular incision. Care is exercised to avoid injuring the ureters and bladder. The tissues are now dissected before and behind, until the peritoneum is reached. The vagina is again irrigated with a 1 to 2000 acid sublimate solution, and the peritoneum opened into Douglas's pouch. This opening is extended laterally by the fingers, and a large sponge, with string attached, is introduced. This sponge serves to keep back the intestines and prevent the soiling of the intestines and the peritoneal cavity. The anterior peritoneum is now opened and torn down to either broad ligament.

Glancing over the literature of the subject, you will see a variety of methods followed in the completion of the operation. The uterus is anteverted, retroverted, or steadily drawn down; the broad ligaments are ligated *en masse*, in sections, or compressed by clamps or forceps. The peritoneum is closed by sutures; the mucous membranes sutured or the peritoneum and the mucous edges brought together. These plans of procedure require from one and a half to four hours for the completion of the operation. We will draw down the uterus firmly, introduce a finger behind it, over the broad ligament, and with this as a guide, pass the first blade of the accompanying clamp while the other blade is passed anteriorly, locked, and the ligament compressed in close proximity to the uterus.

Another clamp is applied upon the opposite side, and the uterus cut away between them. A second diagram shows a pair of forceps that may be substituted for the clamps.



No sutures are introduced, for upon the removal of the sponge the torn edges of the peritoneum are drawn down, and the two surfaces lie in contact. To promote drainage, we introduce a tampon of iodoform gauze and apply a pad of the same over the vulva.

The duration of the operation has been twenty-five minutes. The completion of the operation was delayed somewhat by the extra size of the fundus. From its size and feel, it is possible that the disease involves the fundus of the organ as well. As Prof. Laplace opens it, you see that the mucous membrane of the entire body of the organ is the seat of disease. The patient will be put to bed and surrounded by bottles of hot water and a hypodermic of atropine gr. $\frac{1}{80}$th given to anticipate shock. There is usually a marked reduction of temperature, due most probably to the pressure upon the sympathetic nerves in the broad ligaments.

The clamps will remain in position twenty-four hours; the tampon will be retained forty-eight hours. Its removal will be followed by vaginal douching with antiseptic solutions—acid sublimate—1 to 10,000, or a solution of sulphurous acid. The patient will be kept with the upper part of the body slightly elevated to facilitate drainage. If all symptoms are favorable, she will be permitted to sit up at the end of two weeks.

(Beyond a slightly elevated temperature, reaching 103°,

this patient has done well; a part of the time the vaginal discharge has been profuse and somewhat offensive, but the quantity has decreased and the temperature has fallen to 99°.)

ART. II.—**The Microscope in Medicine. Some of Its Discoveries.**

By CHARLES MINOR BLACKFORD, M. D., of New York, N. Y.

[*From Page 640, November Number.*]

In the first paper published under this title, the subject of microscopic *technique* was considered, and the simpler manipulations described. The natural query arising in a thoughtful mind would be, of what use are these processes, and what results have followed them? The object of this paper is to show in outline some of the more important and valuable of the discoveries made by the microscope in the line of our profession.

One of the earliest feats which the microscope performed in what are called the medical sciences, was the demonstration of the circulation. The genius of Harvey had shown that a circulation was probable—even that no other hypothesis was sufficient to explain the phenomena; but the capillaries were unknown, and were not discovered until nearly fifty years after his death. In 1661, Malpighi, whose name is applied to so many histological structures, discovered the capillaries, and showed that, though the blood-current oscillated back and forth in them, yet the flow was from artery to vein, and in no case from vein to artery. The circulation was established in a manner that none could gainsay, and physiology became a demonstrable science, whereas before it was based only on wordy arguments.

It seems strange that but a little over two hundred years ago the circulation of the blood should have been disputed; but up to that time "the wisdom of the ancients" had been held unimpeachable, and he who disputed it was considered

a madman. The old traditions having been shaken, and shown in this instance to have been wrong, men gradually lost faith in them and turned to nature instead of Aristotle.

In this scientific awakening, the microscope was brought more into use, and by its aid a world hitherto unknown was discovered. The early instruments were extremely unsatisfactory. Objects viewed through them were vague in outline, distorted and fringed with colors; and for a long time this chromatic aberration was thought to be a necessary evil. It is therefore not strange that we find contradictory statements in the works of the time, and that no confidence was placed in any but the most general descriptions of microscopic objects But a few enthusiastic workers saw the great possibilities of this almost discredited instrument, and by their zealous labors improvements came about. The spherical and chromatic aberrations were remedied, and no longer we saw through a glass darkly, but with a distinctness which was hardly deemed possible, and the microscope now stands as our most valuable ally in scientific research.

With the correction of errors of refraction, and especially with the production of objectives of high powers, came an increased eagerness to learn the new science of microscopic anatomy. It is within the present century that histology became a recognized branch of medical study, and even uow it is properly taught in but comparatively few schools. It has been found that all organized tissues, both animal and vegetable, are composed of small masses, each complete in itself, and to such a mass the name of a *cell* has been given. In these cells resides the strange property called life; and the life of the most highly organized body is but the sum of the lives of the cells composing it. If the water from the faucet be allowed to trickle through a filter made of fine muslin, and then the slimy deposit found on the filter be exposed to the light for a few days in a warm place, we will find in it a very noteworthy creature. This is the *amœba*, a minute organism which consists of a single cell. It is clear and jelly-like, having in its substance a smaller body, called its

nucleus; but the strange thing about it is the power that this single cell has. It moves about by throwing out a little projection and transferring the whole of its substance into this projection or pseudo-pod, as it is called. If a bit of vegetable matter lies in its way, it flows around it, and gradually assimilates such portions of it as are needed, and the undigested portion is extruded at any convenient point. If we touch it, it contracts into a small spherical mass; but this is not all, for if we are fortunate, we may see the nucleus divide into halves, and a constriction appear around our minute fellow-being which deepens until the amœba is divided into two, each containing a nucleus, and each able to live independently.

We see that this organism, consisting of a single cell, is capable of automatism, assimilation of extraneous substances to its own needs, and of reproduction of its kind. In higher organisms, as the number of cells increase, we find that they have different functions, and that their form undergoes change to adapt them to their new duties, or, to use a technical phrase, they become differentiated.

In highly organized bodies, as man, for instance, some cells have irritability developed to the exclusion of other properties, and constitute nervous structures; others have contractility developed excessively, and muscular tissue results, and, indeed, throughout the body we can trace tissues, which apparently differ radically, back to the original protoplasmic cell, as typified by the amœba.

After the enunciation of the doctrine that all tissues are composed of cells, much study was given to the functions of the cells in health. It was discovered that glands were essentially composed of cells so differentiated as to fit them peculiarly for secretion. The changes which these cells undergo in secretion, their relation to the blood and to the secretions of the glands and the function of the secretions, have been carefully elaborated, though attention has by no means been confined to them.

The nerve-cells, in which irritability is characteristic, the

contractile muscular cells, and indeed every modification of the cell that has been found, has been investigated. In the blood, we find "white cells," which possess many of the qualities of the amœba, and which can, by their own action, pass through the vascular walls into the tissues, where they are known as *indifferent* cells; and there, by the mysterious process of differentiation, they become in one place muscular, in another glandular, or in a third, nervous tissue.

Now, since cellular action of the right sort is essential to health, a disturbed or disordered action is the essence of disease. For a long time disease was regarded as something from without, some species of ogre that pounced on an unsuspecting and defenceless victim. Among barbarous nations, it is considered a demoniacal possession, and for ages it was regarded as a mark of divine wrath. The terms, "stroke" of paralysis, "epileptic" seizure, and the like, are but traces of this idea; and in disabusing us of this erroneous impression, the microscope has conferred not the least of its benefits.

It is true that there are many diseases which are not fully understood to which we apply the term "functional," as a mask for our ignorance; but in those that are worked out, we find that the trouble lies with the cells These may be degenerated, atrophied or swollen—they may form improper structures, or they may be broken down and gone, but the cells are at fault.

Virchow was so impressed with this that he styled his work "Cellular Pathology;" and it is only since the changes in the cells have been studied, that anything worthy of note has been known of pathology.

The tumors have occupied a prominent place in the minds of those practicing medicine and surgery for a long time. It was known that some of these were of slow growth, and were not directly the cause of death, whereas others were invariably fatal. Furthermore, it was noticed that some of these would recur if removed, whereas others would not.

Here the microscope showed that the different tumors

were of different structure, and that the cells and inter-cel lular substance differed. In some tumors fat cells only are found; in others, some variety of connective tissue; whereas in those to which clinical experience had given the name of malignant tumors peculiar formations are found, and the cells present are foreign to their surroundings and abnormal in their arrangement. By means of the microscope, a diagnosis can be made by which the surgeon can tell whether the neoplasm under observation is dangerous to life, and to judge accurately as to whether a proposed operation is justifiable.

Such is the construction of the human mind that it is not satisfied merely with the statement of a fact, but the cause of the fact must also be known, and the bulk of our modern science consists of these causes. It had been noticed by surgeons that wounds made subcutaneously would heal by first intention, that is, without suppuration, and this phenomenon was carefully investigated.

The idea that suppuration is a result of putrefaction was a very old one, but one that had been disregarded. The etiology of pus was a mystery that the older surgeons could not solve. In hospitals, gangrene, erysipelas and septicæmia wrought havoc, and no means of arresting their ravages seemed possible. Surgical patients were even kept in tents in the open air—the danger of exposure being less than the risk of infective wound disease within doors. In military surgery it was equally bad. It was estimated that in war more lives were lost from blood poisoning than from bullets. A wound of the abdomen, or even of a large joint, was almost invariably fatal, and but little was done by the surgeon but to stand by and see the patient die, or to give opiates until death came.

It was considered that the presence of a foreign body was the cause of the inflammation and suppuration; but there were occasional cases reported in which the ball or other body became encysted and did no harm, so it alone was not the source of trouble.

Then it was thought that dirt produced the dreaded complications—what sort of dirt was not known. It was found that certain applications would check or prevent the exhausting and dangerous suppuration. Among these was carbolic acid in dilute solutions, but the *rationale* of this treatment was unknown. In Bellevue Hospital, in 1872, the mortality after amputations was 98 per cent.; but on the introduction of the "open method" of treatment, with constant washing of the stump with carbolic acid, the precursor of our modern methods, this dropped to 60 per cent.

Finally, by examining pus microscopically, small spheroidal bodies were found, which were called *micrococci*, and it was thought that they might cause the pus; so cultures were made from them for experimental purposes. A test-tube was heated to about 400°, a temperature too high for any living being to survive, and, after being cooled, a mixture of beef tea and gelatine was poured into it. This mixture had been boiled to kill any living organisms that might be in it, and was thus "sterilized." The tube was plugged with cotton, through which air could pass, but nothing else, and the tube laid aside.

On microscopic examination, a few days later, no cocci were found in it. A drop of pus was cautiously added by a sterilized platinum needle, and the cotton plug replaced. Another interval of a few days was allowed to pass, and the culture medium was found to be filled with micrococci similar to those in the pus. From where did they come? Not from "spontaneous generation," for the same conditions of light, air and temperature existed in both experiments. They were the progeny of those planted from the pus. Cultures were made from these in turn until several generations were passed through. Now came the crucial test. If these micrococci cause suppuration, then if they be injected into a healthy animal, suppuration should follow; or, if two wounds be made, and one be protected from them, or steps be taken to destroy such as do reach it, the wound so protected should not suppurate, while the other should do so.

It is unnecessary to detail the experiments; such details may be found in more elaborate treatises, but the results of every experiment have shown that these micro-organisms are the causative factor; and the fact is no more to be doubted than that the yeast-plant is capable of splitting sugar into alcohol and carbon dioxide.

The antagonists of this view say that if it be true, then the air must teem with micro-organisms; and this they regard as a *reductio ad absurdum*, but it is easy to show that the air does teem with them. To cite familiar examples, the custom of cooks in preparing yeast shows that the spores of the yeast-plant pervade the atmosphere, and the mould that forms on preserves or old leather shows that the spores of that minute fungus, the *penicilium glaucum*, are equally abundant.

Now, these cannot originate *per se*, for all life springs from antecedent life, and if the yeast or the penicilium exists in the air, why should not the pus-forming plant as well? If we pour our culture-medium on a carefully cleansed plate of glass, instead of the test-tube, and expose this plate to the atmosphere for a few minutes, the bacteria will be found on it, and experiments on animals will show that they are pathogenic.

It is only necessary to look at the track of a sunbeam across a room to be convinced that the atmosphere is laden with dust; and by such modes as are indicated above, it may be shown that this dust is largely made up of bacteria or their spores.

In the College of Physicians and Surgeons, in this city, the ventillation is effected by pumping air into the various rooms by machinery. In some of the rooms, the air of which is desired to be especially pure, filters of cotton are placed over the inlets. These filters are changed once a week, and when the old ones are removed, they are black from arrested impurities. If a bit of this cotton, through which, it must be remembered, nothing but *air* has been passed, be shaken over a culture-tube, thousands of bacteria of different species are found as the result.

Now, these, or their spores, must have been in the air forced through the cotton, and their presence shows that they are universal, for we cannot suppose that this institution selects a peculiarly germ-laden atmosphere for its use.

But the best defences of a system are its results. In the hospitals in which this war on our tiny foes is waged systematically, the death-rate following operations has diminished surprisingly, and, proud as we are of the skill of our professional brothers, we cannot claim that this diminution is due to increased operative dexterity. Hospital gangrene, erysipelas, prolonged suppuration, and septicæmia, belong to the past, and it is not uncommon to see patients recover from serious operations without a rise in temperature or a bad after-effect. The range of surgery has increased until the abdomen, synovial membranes, and even the brain, are accessible for operations, and should a wound disease follow, the cause is invariably found to be some violation of strict antisepsis. Can the most bigoted opponent of the system want more evidence?

Consumption or tuberculosis is a disease from which more than one-seventh of the whole number of deaths occur, and yet it is only within the last ten years that anything was known of its cause. It is now known, and has been proved by experiments on animals, that it is caused by a little rod-like bacterium called the bacillus tuberculosis. If these be cultivated through many generations, and be then injected into a rabbit, that rabbit will die of tuberculosis; and in the little nodules found throughout its body after death, we will discover the bacilli with which another inoculation can be made with like result. Since, in this experiment, "pure cultures," *i. e.*, fluids containing only this particular bacillus, are used, there can be no source of error, and the inference is irresistible that this micro-organism, with suitable environment, will cause the disease.

We are no longer struggling in the darkness with an unknown adversary. We have met the enemy, and though he is not yet ours, still we have something tangible with which

to contend and can resume the conflict with renewed ardor.

I do not intend to go further into bacteriology in this paper. The subject is too wide and is too imperfectly known to come into the range of these articles, and it is referred to only as the field in which the microscope is doing its best work.

In concluding this unsatisfactory review of some of the things accomplished by the microscope, I may safely say that nothing has done more to advance the science of medicine than has it. Medicine only deserves the name of a science since its introduction: and the mighty strides made by its aid in the past, promise but greater ones in the future.

30 *West 61st Street.*

Art. II.—Practical Observation on the Causes of Insanity.

By JOSEPH JONES, M. D., of New Orleans, Louisiana.

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The scientific and rational treatment of insanity, must be based, to a large extent, upon a thorough study of the causes which tend to induce those physical derangements of the cerebro-spinal nervous system, which are accompanied by mental and moral aberration.

The study of the causes of insanity is of great moment to the legal profession, as well as to the science and practice of medicine.

We shall deal with facts, and the results of scientific observation and practical experience, and not indulge in mere hypothesis or theory.

Causes of Acquired Insanity.—We have, after critical study and analysis, been able to refer those cases of acquired insanity, which have come under our immediate observation and professional care in Georgia, Tennessee and Louisiana, to the following causes:

1. *Hereditary constitution* of the cerebro-spinal nervous

system, induced by intemperance, syphilis and other causes acting upon one or both parents, as self abuse and excessive venery. Hereditary insanity, implying hereditary weakness of the nervous system, generally comes on without the interruption of appreciable exciting causes. The nervous system seems to be peculiarly liable to be involved in the effect of hereditary degeneracy; and this is frequently evinced by the occurrence of mental symptoms at those periods of life when either rapid and structural development takes place, special functional altering is and was exhibited, or is ultimately arrested, or upon the advent of senile decay. We have thus an insanity of pubescence, a climacteric insanity, and a senile insanity. Idiocy and imbecility are also frequent results of hereditary weakness showing itself during fœtal life, or during the period of dentition.

The insanity which often effects women at parturition, insanity of pubescence, climacteric and senile insanity may often be traced to hereditary weakness of the nervous system.

2 The excitement incident to the habitual and frequent indulgence of the unnatural practice of *masturbation* leads to the most serious constitutional effects, and in some cases to the loss of the higher moral feelings, entire degradation of the moral sense, and hopeless insanity.

The effects of masturbation are more especially manifested in the nervous system, the functions of which are more or less perverted. The mental faculties become more or less affected—there is great despondency, loss of memory, irritability, irregular action of the heart, derangement of digestion, prostration of strength, headache, neuralgic pains. There are general loss of health and strength, chronic hypochondriacal invalidism, epileptic seizure, ending in many cases in impotency and hopeless insanity.

Guardians, parents, and teachers cannot be too careful in guarding those entrusted to their care from this most degrading and pernicious of all habits. The effects of masturbation in inducing insanity may be witnessed in its

victim long after the cessation of the pernicious practice. The child of the masturbator is liable to hereditary insanity.

3. *Alcoholic insanity* is met with in three forms:

a. Acute alcoholic insanity.

b. Chronic alcoholic insanity.

c. Delirium tremens.

Acute alcoholic insanity seldom occurs except when there is a strong hereditary tendency to mental disturbance, or when the cerebral energies have been notably impaired by excesses or overwork. When all these predisposing causes exist, it may not require a large dose of alcohol to bring on an attack.

The most frequent form of the affection is violent maniacal delirium, known as *mania a potu*, with a tendency to homicidal acts. In some cases the mental disorder takes the melancholic form, and it becomes necessary to guard especially against the strong suicidal tendency which generally characterizes it. Unless the brain has been weakened by repeated attacks, both forms are curable and generally of short duration.

Chronic alcoholic insanity is one of the results of chronic alcoholism, and illustrates in a forcible manner the solidarity of the psychical and somatic functions of the nervous system and the inter-dependence of their morbid manifestations. The mental symptoms are generally present from the beginning, though not always prominent enough to attract special attention. The sleeplessness so characteristic of commencing mental disorder is an early symptom; then restlessness and depression, with suicidal tendency, sometimes passing rapidly into a complete dementia, but generally passing gradually through a course of moral and mental degradation, which progresses, step by step, with the symptoms of failure of physical nervous power. Chronic alcoholic insanity presents many points of resemblance to *general paralysis* of the insane, and in some cases can only be distinguished from it by the presence of mental depression, which is seldom more than a transitory symptom in the general paralysis

Delirium tremens. It is important to note that after the acute symptoms have passed away, in some cases there is left behind a state of sub-acute insanity of a characteristic nature. At first suicidal symptoms are apt to appear; suspicions of poisoning, fear of impending evil, and hallucinations of hearing are also frequent.

That ordinary vinic or ethyl alcohol, in any and every shape, is a sufficient exciting cause of alcoholic insanity is beyond doubt. The more concentrated the form in which alcohol is taken, the more surely and rapidly are its characteristic effects induced; and although some beverages give a greater liability to certain forms of disease than to others, yet the ultimate tissue changes produced by all are practically similar, and of a markedly degenerate character. The purest alcoholic fluids will also induce the *acute forms*, but some of the phenomena observed in the worst cases of alcoholic poisoning have been referred, with some probability, to admixture with *fusel oil, essential oil of wormwood, coculus indicus* and other substances more deleterious than corn alcohol itself.

Chronic habitual drinking is undoubtedly *hereditary* in many cases; not that the ancestors have been necessary drunkards, but that the family is of unstable nervous organization, and that the neurotic trait which shows itself in other members in such affections as epilepsy, hysteria, insanity, is manifested in these cases by an intense craving for alcohol. Sometimes a pernicious education, by fostering habits of indulgence in early youth, has led to subsequent excess and chronic alcoholism; and the injudicious prescribing of stimulants has occasionally been productive of similar harm.

It is well known to pathologists that a large amount of ardent spirits acts on the nerve centres as a narcotic poison, and causes rapid death by coma; smaller quantities produce intoxication, accompanied with or followed by an acute congestion and catarrh of the alimentary canal, especially of the stomach and duodenum.

Habitual dram drinking, by altering the chemical composition of the blood, and checking the normal changes of its corpuscles, excites an injurious influence on the nutrition of the tissues. This is increased by the lessened consumption of food and by the alteration in the calibre of the blood vessels, set up at first by a special action on their vasomotor nerves, and afterwards maintained by degeneration of their coats, as well as frequently of the heart itself. Alcohol interferes directly with the nutrition of the cell-elements of the various organs, including the cerebro-spinal system, as it circulates through them, and it retards the elimination of effete materials—carbonic acid, uric acid and urea.

In chronic alcoholism the amount of fat in the blood is increased. Chronic congestion and catarrh of the stomach leading to atrophy of the glands, and an increase in the sub-mucous connective tissue are very common. The liver is at first enlarged from congestion, and may continue so from a subsequent infiltration of fat, but more frequently it shrinks owing to cirrhosis.

Lobar emphysema, chronic bronchitis and hypostatic pneumonia are common. The heart is flabby, dilated and presents fatty infiltration, and even degeneration of its muscular tissue, but it may be hypertrophied probably as a result of co-existent disease of the kidneys. The arteries and endocardium are studded with other small deposits; the capillaries are congested, and the veins varicose. The kidneys exhibit the fatty, or more commonly, the granular form of Bright's disease. The muscles are pale and flabby, and even in the bones, the formation of fat takes place at the expense of the bony texture. The nervous centres are atrophied and tough, the convolutions are shrunken, the nerve cells and nerve fibres are wasted and an increased amount of serous fluid exists in the ventricles and sub-arachnoid space. The abnormal adhesions of the dura-mater to the cranium, the large Pacchionian bodies, the opaque arachnoid and the thickened pia-mater, all testify to an aggravated

development of fibrous tissue. Occasionally, hæmorrhage with, or softening of the brain, consequent on the diseased state of the blood-vessels, is met with.

We have in the preceding well-known pathological alterations induced by the continuous and intemperate use of alcoholic drinks, an explanation of the terrible effects of intemperance in filling our jails, prisons, hospitals and insane asylums with miserable, diseased, suffering and incurable human beings.

4. *Constitutional effects of the action of the poison of syphilis.* Insanity may result from the degeneration of the ganglionic cells, nerve tissues, and from the formation of gummatous tumors upon various portions of the cerebro-spinal nervous system. When constitutional syphilis affects the brain and nervous system, the mental symptoms that arise are found, in the majority of cases, to present marked similarity in their character. The mental disturbance is generally preceded by distressing sleeplessness; this is generally followed by increasing depression of mind. Religious anxiety of a peculiarly hopeless character frequently shows itself. Exaggerated self accusings are earnestly uttered by those who have previously been unusually callous as to the result of their actions. The feeling of alarm which accompanies these symptoms sometimes developes into a violent excitement, which may be called maniacal.

The development of gummy products within the cranium is frequently evinced by symptoms similar to those of general paralysis. Headache of persistent character, giddiness, vertigo and epileptoid fits occur, accompanied at first with mental depression. During the progress of the disease attacks of acute delirium are not unusual. Sometimes extravagant delusions, such as are frequent in general paralysis are exhibited; but generally the progress of the disease is characterized by a gradual falling into dementia.

5. *Epilepsy, congenital, hereditary* and *acquired.*

6. *Religious excitement.*

The contemplation of certain hypotheses and dogmas, held and vehemently urged from the pulpit by some religious sects have, without doubt, produced great excitement and alarm in the minds of persons of excitable and unstable nervous organization. The burning eloquence and moral pictures of the religious enthusiast and fanatic, and the horrible revelations of the melancholy and sinister imagination of Danté have converted the souls of the unwary and timid into indescribable forebodings and alarm.

Certain dogmas, often represented and illustrated by fiery language, and by the subtle power of the painter's brush, as the fires and tortures of a burning hell, a veritable lake of fire, whose fiery billows eternally wrapped the bodies and souls of the damned, and whose shores forever resound with the piercing but hopeless shrieks of those inhabitants of this earth who have failed to enter heaven on account of the commission of personal sins—veritable living devil, ever on the alert to seduce and damn the souls of men, women and children, and drag the unwary down to everlasting confusion and suffering in the bottomless pit—the unpardonable sin—have for centuries terrified the weak and timid devotees of certain phases of religious faith with hopeless insanity.

The violent exercises of certain sects, during the performance of so-called religious exercises, such as shouting, hopping, jumping, dancing, "*demoniacal*," "*holy*" laughing, often induce epileptic seizures and inaugurate such congestion and such exhaustion of the nervous structures as induce religious melancholy and end in hopeless insanity.

The hallucinations which, in the experience of the author, exercise the greatest influence on the victims of religious insanity, are:

a. The firm belief by the victim that he is the child, the slave and the abject subject of *The Devil.* To all remonstrances the victim replies that he must obey his master, the Devil.

I have observed and treated cases where the victim of re

ligious melancholia and hallucination has for days and weeks refused all food, because his master, the Devil, commanded him not to eat. In some cases, every agent and every effort to induce the patient to take food have failed, and death has resulted from starvation.

b. The *Commission of the "unpardonable sin."*

c. The Eternal damnation of the human soul. Lost, lost, lost forever.

In all cases of insanity resulting from religious excitement which I have examined from their inception, the following appears to be the order of symptoms:

1st. Congestion of the brain, with more or less fever.

2d. Increased rapidity of the circulation.

3d. Persistent sleeplessness.

4th. Intense activity of the three ganglionic centres especially connected with the imagination.

5th. High colored urine, with an increase of phosphoric acid.

6th. Foul breath, furred tongue and loss of appetite and derangement of digestion.

I have never observed a case of so-called *religious insanity* which did not present marked physical derangements in addition to the mental phenomena—the physical disorders often preceding and always revolutionizing the mental aberrations.

I have treated a certain number of cases of "religious insanity" and hereditary or congenital imperfections of the nervous system, chronic alcoholism and masturbation. The ill effects of masturbation may appear in mental derangement long after the habit has been abandoned.

7. *Political excitement* and certain political and race changes, such as those wrought by the great American civil war of 1861–1865.

8. Persistent, deep-seated and *uncontaollable grief*, caused by domestic afflictions, loss of parents, children, husband, wife.

9. *Disappointed affections, domestic quarrels* with their

attendant existing unhappiness, and oftimes moral degradation.

10. *Sudden reverses in business*, loss of property and money.

The privations, exposures, temptations, humiliations, and vices incident to poverty, are fruitful sources of cerebral excitement, marked depression, melancholia, mania, and insanity.

The unparalled destruction of property and the unparalleled disasters and degradations which befell the people of the Southern States of the American republic were not productive of such dire effects in the production of insanity, from these causes:

1. The consciousness in the justice of the cause for which their lives and fortunes were risked.

2. The brave and heroic nature of the Southern people.

3. The physical development and perfection of the men and women of the Southern States.

4. The four years of incessant marching, entrenching and fighting which characterized the campaigns of the Southern army during the struggle (1861–1865) inured the soldiers to hardship, hard work, frugal and scant meals, and educated their minds to face, without a murmur, disease, disaster and death.

A heroic struggle tried the hearts of the entire male population of the Southern States in the fierce fires of battle, and prepared them to struggle manfully with subsequent degradation resulting from defeat. It is, however, true, that in the Southern States the number of cases of insanity has been increased in virtue of the changes wrought by civil war.

11. *Melancholia* following gynæcological operations on the female sexual organs.

The effects upon the nervous system of the numerous abdominal sections and frequent ablations of the uterus and ovaries have not been fully described and are subjects of careful investigation.

12. *Climacteric changes.*

13. *Sunstroke.*

14. *Remittent fever.*

15. Morphine, cocaine, opium, tobacco and other poisons.

16. The *action of various poisons*, as those of malaria, lead, mercury and arsenic. It would be foreign to the purpose of the author to discuss the effects of race, occupation, climate, age, education, and many other subjects, upon the production, increase or decrease of insanity. Neither is it his purpose to dwell upon the treatment of insanity or the construction and management of asylums.

Art. IV.—Buffalo Lithia Water in the Treatment of Stone in the Bladder—Its Solvent Properties—Its Value in Bright's Disease, Cystitis, etc.

By JOHN HERBERT CLAIBORNE, M. A., M. D., of Petersburg, Va.

Ex-President and Honorary Fellow Medical Society of Virginia, etc.

I have for many years been prescribing the use of the Buffalo Lithia Water in cases of lithiasis, uræmia, Bright's disease, cystitis, and of congener affections, and with the same marked results which have followed its exhibition in like conditions by a number of other physicians. The most striking instance, however, in which I have seen the solvent properties of the waters manifested has been in the case of Mr. Thos. D. Moss, of this city. Mr. Moss had been subject to attacks of lithiasis for several years; but in August last, after one of the most violent attacks of nephritic colic, passed gravel from the kidney into the bladder, where it remained for a week or more, setting up a severe inflammation of that viscus, with all of its painful and distressing symptoms. Finally, however, the gravel re-commenced its journey, and became lodged in the prostatic portion of the urethra, cutting off the flow of urine and causing retention. Being compelled to use a catheter for the relief of this symptom, I pushed the calculus back into the bladder, as there was too much inflammation to resort to either the crushing of the stone or to its removal by lithotomy.

I put the patient to bed, restricted him to a milk diet, administered opium suppositories in sufficient doses to relieve vesical tenesmus and pain, and directed him to drink the Buffalo Lithia Water in the largest quantities which he could bear. He succeded in drinking from a half gallon to a gallon every twenty-four hours, and, at the end of about ten days, commenced to pass the detrita of the gravel, as I suppose, in quantities which seemed incredible. At all events, after passing his water upon a clean board, and allowing as much of it to flow off as would, you could then scrape up with a knife a teaspoonful or two (after every passage of urine) of phosphates, urates, etc., closely resembling whitewash which had been applied to the board, and which had there dried.

This continued for a week. I then washed out the bladder several times with a warm solution of boracic acid, and Mr. Moss was soon on his feet again. At this writing, he says that he is perfectly well, and feels, for the first time in many years, entirely free from all kidney or bladder trouble.

Clinical Reports.

Criminal Neglect—Death from Inanition—Autopsy.

By DR. W. J. JONES, Mushet, Va.

Mary L——, a colored prostitute, gave birth to twins, both females. The mother is as black as the ace of spades, but the children were bright mulattoes, were well developed, plump and strong. Four weeks after birth I was called to see them. I found them very much emaciated, but could discover no other evidences of disease. On inquiry, I learned the mother had never nursed the children. She said her breasts had not secreted any milk. I made an examination and found she had lied. She was a robust, healthy woman and had even then sufficient milk to nourish one child, if not both. Her grandmother was nurse to the children and was accessory to the criminal neglect of the mother. The motive was in the fact that nursing chil-

dren and entertaining white paramours were incompatible occupations. On the second day after my visit one child died. I deemed it my duty to report the circumstances and my suspicions to the civil authorities. Therefore, I was ordered to make a *post mortem* examination of the dead body. The following notes, taken at the time, describe the result:

The body was greatly emaciated and remarkably light in weight, skin loose and cyanotic, the outlines of bones visible, the eyes deep in the sockets, conjunctivæ a blueish white color, joints easily moved, hands open, no rigidity.

Proceeding, the muscles were found to be very soft and entirely destitute of fat; blood vessels full; adbominal walls very thin; breasts contained milk; intestines filled with serum and undigested food and no gas. The duodenum had several large spots on its external and upper part like bile stains. The appendix vermiformis was very long (2½ inches) and filled with cheesy fecal matter. The ascending colon was adherent to the peritoneum just above the crest of the right illium. The intestinal walls were very fragile and destitute of fat; the greater omentum was slightly and the lesser omentum entirely wasted; the uterus was normal; the bladder was filled with urine; the right kidney was a little larger than the left, the left being adherent to peritoneum next to lumbar vertebræ. The liver measured 3½x2¼ inches and was filled with blood, the left and posterior margin being bound and constricted by fibrous bands, extending from the right origin of the hepatic duct to the cardiac portion of the stomach. The gall bladder was distended with bile; the stomach contained a small quantity of partially digested food; its mucous membrane was normal; the pilorus was healthy; pancreas small; spleen normal; the heart was normal in size and position; the right auricle and left ventricle were filled with blood clot; the right ventricle was empty and left auricle filled with bloody serum; the superficial vessels were congested; pericardium distended with pure serum; the lungs were distended, the lower lobe of the right was almost entirely separate from the middle lobe; the lower lobe of the left was slightly inflamed on its cardiac surface; the cranium contained no fluid; the brain and its membranes were normal; no fat was found in any part of the body. The adhesions of the left kidney, the ascending colon and the constricting bands on the liver were congenital. The serum in pericardium was a dropsical effusion and probably the result of attenuated blood. The inflamed spot on lower lobe of left lung was of recent origin

and could not have caused death. During life this child had no symptoms of disease except gradual emaciation. Death was the result of inanition from insufficient and innutritious food.

Two days afterwards the other child died. *Post mortem* revealed the following facts: The body remarkably light and rather more emaciated than the first; the skin dry, cyanotic and loose; the eyes deep in the sockets, conjunctivæ, bluish white; pupils dilated; the hands clinched, with thumbs in the palms; muscles rigid; bowels swollen and hard; intestines and peritoneum congested; gall bladder full; bile stains on duodenum and transverse colon; ascending colon adherent to peritoneum just above the crest of ilium; bladder empty; the stomach enlarged, its external vessels congested. It contained partially digested food; liver measured $3\frac{1}{4}$x$2\frac{3}{4}$ inches, and was congested; kidneys normal; pneumonia in both lungs, first stage; heart normal; auricles and ventricles all empty; pericardium normal; the appendix vermiformis $2\frac{1}{2}$ inches long and filled with undigested food; the omentum wasted; uterus normal; no fat in any part of the body.

The inanition evidently was the remote cause of death, although diffuse peritonitis and double pneumonia of recent origin were the immediate causes, and do not exclude the suspicion of criminal neglect in feeding.

Two Cases of Double Uteri.

By Ben. H. BRODNAX, M. D., of Brodnax, La.

Case of Double Uterus.

The following have come under my notice, and may not be uncommon:

I was sent for to see S. H., aged 21; negro; with pruritus of vulva. Suspecting something else, I found, on examination, that the urethra was not where it usually should be. One, and then two, fingers easily entered the passage where it should have been. Below this orifice, I found a normal virgin's vagina, with a half-moon hymen intact, which was as firm as in a 15-year old girl. The urethra admitted a large-sized penis easily into the bladder. She told me that

she thought everything was all right, but that unless she made water before the man had connection a flow of urine always followed his withdrawal of penis. She was well-known to be, as many negro girls of her age are, not chaste, though, how she had escaped being with child, was a mystery to every one, except myself.

How could this dilatability of the urethra exist? I suppose she had commenced very early in life "playing with the boys," and gradual dilatation had produced the urethra of this size.

She could retain the urine as well as any other woman, menstruated regularly, and was healthy and well built.

Double Vagina and Womb.

Delivered H. M., negro, age 40, of the smallest child I ever saw, at full term, which measured eight inches long, well-formed and alive, died half hour later. While removing the placenta, my finger caught in a loop in posterior part of the vagina. Several days afterwards, I examined the parts, finding a double vagina; further examination, with sound, found a second womb; the posterior one joined to the anterior, but with a perfect os and cervix, and depth of womb one and one-half inches. She had told me previously that she menstruated regularly every month, whether pregnant or not, which caused her not to know when she conceived, or when her full time had come. This I had doubted.

The anterior uterus and vagina were of usual size, but the second womb was only about two-thirds the size of the one that had been impregnated, and its vagina was not over a fourth of an inch in calibre. The two vaginas were distinct throughout—they moving on one another when rubbed between the fingers.

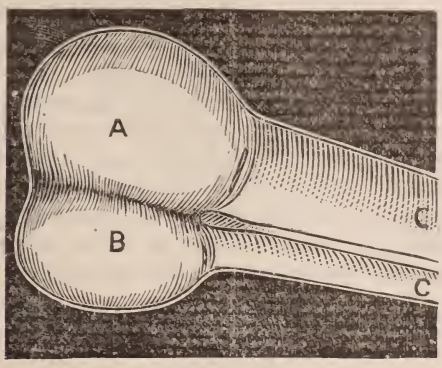
My examination was as critical and careful as could be made on a living subject.

She had evidently never been impregnated in the posterior womb. She is still living, and the birth that I attended her in was the sixth. Should I outlive her, I will have that curiosity when she

> "Puts on dem golden slippers,
> To walk dem golden stairs."

A New York journal some time since published a similar case, reported by a German professor—"Koliker," I think—

and I sent my original report to it, but it never saw light. I was "not from Germany, you know."



The above will give you a better idea of the relative sizes of the two. Both were perfect in shape, so far as I could judge, the second one being about one-third smaller. Whether there were a double set of appendages, I cannot say, not being much of a "feeler."

Proceedings of Societies, Boards, etc

SOUTHERN SURGICAL AND GYNÆCOLOGICAL ASSOCIATION.

The Second Annual Session convened in the Senate Chamber, Nashville, Tenn., Tuesday, November 12th, 1889, and adjourned *sine die* during the evening of November 14th. Distinguished members, (active and invited) were present from Alabama, Arkansas, Canada, District of Columbia, Florida, Georgia, Illinois, Indiana, Kentucky, Mississippi, Missouri, North Carolina, Pennsylvania, Tennessee, Texas and Virginia. The wonderful interest in, and success of this Association—outside of the general importance of the subjects for consideration embraced in the title of this Association—are duly to the untiring zeal and persistent efforts of the Secretary, Dr. W. E. B. Davis, of Birmingham, Ala., aided by the influence of the more than national eminence of the President, Dr. Hunter McGuire, of Richmond, Va.

First Day—*Morning.* Called to order at 10 A. M., by the President, Dr. McGuire. Rev. R. Lin Cave, offered prayer. Dr. Charles M. Hickman, of Birmingham, was appointed by Dr. Davis, Assistant Secretary. Dr. J. M. Buist, Chairman of the Local Committee of Arrangements, made his report as to programme, etc., while the registration of those in attendance was being made. All the officers except two were present. Miss Josa Fleming, M. D., of Nashville, Tenn., was the only professional lady in attendance.

The scientific proceedings were at once entered upon by the presentation of papers, etc. The first paper was

Report of Gynæcological Work with Especial Reference to Methods.

Dr. R. B. Maury, of Memphis, Tenn., reported the more important portion of his operative work during the past year. The work was nearly all done in a private hospital built especially for the purpose. The report embraced twenty-three abdominal sections for various conditions, among which were two for ectopic gestation; twenty-eight operations for lacerated cervix; fourteen perineal and vaginal prolapse operations; five rectoplasties; four anterior colponhaphies. The operator stated that in his abdominal work he had followed the methods of Spencer Wells, of Keith, and Lawson Tait, and he enumerated the distinctive features of these methods. For restoration of perineum and relief of vaginal prolapse, he considered Emmet's operation for "prolapse of posterior wall of vagina" better suited than any other, in most of the cases. Where there was very great relaxation of the vagina, he recommended the operation of A. Martin, of Berlin. The five rectoplasties, and four anterior colponhaphies, were all done after Martin's method, and were completely successful. The operations after this method are done with continuous catgut suture; and the method was warmly commended for its simplicity, rapidity of execution, and the great comfort which it secures to the patient. Out of the seventy-four operations reported, sepsis did not appear in a single one.

Dr. W. O. Roberts, of Louisville, Ky., read a paper on *Direct Herniotomy*, and Dr. Virgil O. Hardon, of Atlanta, Ga., read one on the *Abortive Treatment of Acute Pelvic Inflammations*, which was discussed at length by Drs. Joseph Price, George J. Engelman, and W. C. Ewing, of Nashville, Tenn.

In the next paper, entitled

The Improved Cæsarean Section vs. Crainiotomy,

Prof. W. D. Haggard, M. D., of Nashville, Tenn., instead of giving statistical compilations, discussed the question involving the detruction of a living child—a practice which, though repugnant to the higher instincts, received the sanction of such high authority, that it was almost the universal practice for centuries.

The greatest obstacle to delivery in a majority of cases is some deformity of the pelvis or mal-presentation of the fœtus. The accoucheur has a responsibility second to none in the range of human duty. Two lives hang upon his judgment. He must have a sense of conscious duty, and consider well between the destructive operation of the past, and the conservative methods of to-day.

If one life must be sacrificed, it is the mother's right to live. This opinion, however, is not universally accepted by the medical profession, nor by our brethren of sacerdotal cloth. The great Catholic church of imperial Rome affirms through the Theological Faculty of Paris, "that if it is not possible to extract the infant without killing it, it is not possible to extract it without mortal sin."

In remote antiquity, many women perished in childbirth without artificial aid. But as the science and art of obstetrics advanced, surgeon-midwives attempted various expedients. Pliny has placed upon record the names of Scipio Africanus and Manlius; the name of Cæsar has been justly given to his followers, and MacDuff, was "from his mother's womb, untimely ripped." Version was, during the middle ages, absolutely a "lost art," owing to the frequency of craniotomy, and the forceps was completely buried in oblivion. Baudelocque and his contemporaries essayed to stay the tide of blood, the destructive operations having reached a recklessness that was appalling. Playfair asserts that "craniotomy was performed three or four times as often as forceps delivery;" but "fortunately professional opinion has now completely recognized the sacred duty of saving the infant's life whenever it is practicable to do so."

Yet, notwithstanding so positive a statement, child murder has been too often the order of the day; and until the advent of antiseptic methods, the death rate of mothers after embryotomy has not been inconsiderable; since which time, however, it has been reduced to almost nil; yet the innocents are still destroyed.

With the revival of the improved Cæsarean section by Sanger, in 1880, his improvement in the technique of the operation and antiseptic methods, the light of day began to dawn upon the bloody field of craniotomy, and it now seems likely to culminate in the acceptance of the improved classic Cæsarean section to the exclusion of the destructive method.

All over Europe and America, antisepsis is hovering over the bed of maternity, the mangled and the wounded leading the advance in the line of march against the ills that flesh is heir to. In the Cæsarean section, the office of the physician is to save the life of mother and child.

Embryotomy on a living child, will soon cease to be a scientific or justifiable operation. It is foreshadowed in the statistics of Caruso, who reports up to October, 1888, that out of 135 cases, 74.24 per cent. of the mothers, and 91.72 per cent. of the children, recovered after the improved Cæsarean section. He shows that mothers have three out of four chances; and children, nine out of ten for life. As compared with craniotomy, even under antisepsis, he says that 93.4 per cent. of mothers recover, but *all the children are lost.*

From these facts and figures, Dr. Haggard deduces the following: Given, 100 cases of obstructive delivery, requiring the destructive or the conservative operation. By the former, 93 lives would be saved; by the latter 165—only a difference of 72 living beings out of 100 deliveries. Statistics in the future will even show better results, from the fact that the conservative operation, becoming better understood, will be resorted to from choice and not necessity, after the mother has been exhausted at ineffectual efforts at delivery when obstruction rendered it impossible.

When the obstetrician discovers the obstruction to be insurmountable, he will not hesitate nor delay, but elect one of the conservative methods, and perform it with every advantage such an operation would have over one *forced* upon him by his fears, after the parturient mother has been stretched upon the rack until strength and hope had almost fled. By the revival of the classic Cæsarean section, an intelligent foundation has been laid, on which the true philanthropist can labor in behalf of children, yet unborn.

The general adoption of the Cæsarean section, with its substitutes and improvements, in lieu of the destructive methods upon the living child, will add immeasurably to the span of human life.

During the Afternoon, Dr. W. H. Wathen, of Louisville, read a paper on

Treatment of Ectopic Pregnancy.

He said, in order to adopt the best treatment in ectopic pregnancy it is necessary to know its correct pathology; a failure in this particular has resulted in a variety of methods of treatment, and gynæcologists, of good ability, differ widely in their views. But physicians who recognize that ectopic pregnancy is probably always tubal in its origin, are united in their opposition to the use of electricity or other means to destroy fetal life. They prefer the removal of the gestation sac by laparotomy. He referred to the fact that Thomas adheres pretty much to the old classification of Parry and DeZeimeris, and that he speaks of an "impregnated ovum attaching itself primarily to the peritoneum, and of a fetus and placenta entering the peritoneal cavity by rupture and developing there." He denied the possibility of an ovum attaching itself primarily to the peritoneum, and said that the placenta could not become separated from the tube, and *then* become attached to other structures; the ovum must be held immovably in one position, before its villi can penetrate the tissues; the placenta may become slowly separated from its tubal attachments, and fasten itself to other structure by making epiphytic inroads upon the abdominal walls or viscera, by stripping off the peritoneum.

He did not believe that a classification based upon old statistics of post-mortem examinations could be correct, because these examinations were made by men not trained in pathological and microscopical research, who could not accurately distinguish the tissues often matted together, and entirely changed in physical appearance.

He divided the treatment of ectopic pregnancy as follows:

1. The treatment before primary rupture of the tube.
2. The treatment after rupture of the tube into the folds of the broad ligament, and before the period of fetal viability.
3. The treatment where the sac ruptures into the peritoneal cavity.
4. The treatment after fetal viability, and at the full period of gestation.
5. The treatment after death of the fetus, at or before, the full period of gestation.

He did not believe that a direct diagnosis is ever probable

before primary rupture, and in no instance, would he use electricity to destroy fetal life. He preferred laparotomy, and claimed that the immediate and subsequent results would be better. He said that while Dr. Harbert, in 1849, Kiwisch, in 1857, and Dr. Rodgers, in 1867, had suggested the removal of the sac in tubal rupture, he was probably the first to recommend its removal, if diagnosis is made before rupture. If the tube has ruptured into the folds of the broad ligament, and pregnancy has continued four and one-half or five months, he advised expectancy, and to operate after fetal viability, but before the beginning of the false labor. He advocated the removal of the placenta and fetal membranes where it is possible to do so, and control hæmorrhage by ligation *en masse* at the proximate end of the large vessels. If this cannot be done, it is best to leave the placenta to be absorbed, and close the abdominal wound aseptically, after the fashion recently described by Dr. Tait.

Pus in the Pelvis and How to Deal with It.

Was the title of a paper by Dr. Joseph Price, of Philadelphia, Pa. [published in *Practice*, Nov. 20]. He has never seen pus in the pelvis independent of tubal trouble. If it ever does so occur, it must result from traumatism, and he does not see how it could fail to involve the surrounding structures. The rarer causes of pus in the pelvis are carious bone (psoas abscess), traumatism (sloughing results of electricity, direct violence, etc.), foreign bodies (extra-uterine bones, etc.). But, as a rule, it is the result of diseased uterine appendages, whether due to ruptured extra-uterine pregnancy, a suppurating ovarian or dermoid cyst, or salpingitis caused by gonorrhœa, parturition, dirty instruments, electricity, or what not. Pus in the pelvis is very rarely a simple, single abscess, and this fact has most important bearings on the treatment. From the anatomical relations of the organs, the complexity is easily understood. Peritoneal inflammations and adhesions are always present; the tubes are frequently divided into pus-pockets, etc. The diagnosis is easy in typical cases. In acute cases, the treatment for any condition simulating it would be the same. In chronic cases, the errors of diagnosis are most frequent—being mistaken for typhoid fever, psoas abscess. As to treatment, evacuate the pus and then remove the cause of the suppurative process. Remove a suppurating tube or ovary. Electricity has no place in the treatment of pus in the pelvis. Counter-irritation, local depletions, and general sys-

temic treatment, in the vast majority of these cases, are futile. Vaginal drainage is a crude, inefficient, and barbarous method, and not so safe as some would have us believe. Were pus in the pelvis always, or even generally, in a single abscess cavity, the method might be rational and effective, but, at its best, it would be a poor substitute for abdominal section. In abdominal section, we have the quickest, easiest, most exact, and, therefore, safest mode of treatment for pus in the pelvis. A small incision, rapid enucleation of the offending tubes and ovaries, the breaking up and evacuating of pus-pockets, the separation of adhesions, the thorough washing out of the peritoneal cavity by copious irrigations of distilled water, the placing of a glass drainage-tube in the most convenient portion of the peritoneal cavity, and the careful closure of the abdominal incision, gives the patient the quickest relief, a permanent cure, and very often snatches her from an impending death. Moreover, here we attain the most ideal treatment, for at no other point of the body can we enucleate completely an abscess with its containing walls and pyogenic membranes. Many patients dying with pus in the pelvis, need but a feather's weight to depress the beam. In such cases, the indications are, to evacuate the pus, wash out the cavity, and wait until a future time to remove the offending cause.

Gynæcology in Its Relations to Obstetrics

Was the title of a paper by Dr. William L. Robinson, of Danville, Va. He stated that an ulcerated cervix uteri predisposes to uterine hæmorrhage before labor laceration during labor, and furnishes a fertile soil for septic infection. Whenever a yellowish or dirty white flow comes from the vagina of a pregnant woman, if the vulva is sore or inflamed, a granular os uteri will almost surely be found—whether lacerated or not. Treat such cases with carbolic acid and boric acid, and heal up the sores or granular surfaces before labor sets in; or else laceration of the cervix will inevitably occur during delivery. If the laceration occurs, and if the placenta is not retained, and if the rent is not stellated, repair at once; otherwise, irrigate with antiseptics. If the perineum is extensively lacerated, repair at once, *unless* the vagina is bruised and pulpy, in which latter case the stitches will cut out, and form pus-pouches in the vagina. If septic fever does supervene after labor, if proper extra-uterine irrigation and aseptic precautions have been observed as to the lacerations, and if no pelvic pain exists,

and no tenderness is developed in moving the uterus, and if no deposits can be found by careful examination, laparotomy is irrational. *Per contra*, if tenderness indicates the presence of pus in the tubes, verified by physical examination, then laparotomy is the only resort.

As to *uterine fibroids during pregnancy*, he has had two cases to go to full term, heavily guarded by opiates, and the tumors decreased so as not to annoy the patients afterwards. In another case, there was a double uterus, with a common cervix. The right uterus was affected by a fibroid extending to the umbilicus, which misled two *eminent* gynæcologists into the diagnosis of an extra-uterine pregnancy, while all parties recognized pregnancy of the left uterus. She miscarried at the third month, and the fibroid of the right uterus gradually almost disappeared. He would advise against the use of electricity in cases of extra-uterine pregnancy, for fear of rupturing the sac. He is suspicious of the reports of electricians in this matter, and thinks that if any means existed of proving faulty diagnosis, the records would show vastly reduced figures of successes than their printed records.

A question worthy of further investigation is, whether or not unrepaired laceration of the cervix uteri involves the loss of sexual feeling on the part of the wife. In a number of cases where husbands consulted him with reference to such loss, specially marked since the last labors, he has found lacerated cervix in each case, with one exception. He has been further confirmed in the opinion of such cause and effect by the restoration of normal sexual sensibility after successful repair of the lacerated cervices. He is aware that but little or no sensibility exists in the cervix; but he suspects that reduction in the size of the uterus and restored normal circulation in the pelvic organs as the result of such repair, causes a cessation of pathological reflex actions, and thus restores the normal function.

During the Night Session, the Address of Welcome was delivered by Hon. A. J. Caldwell, and this was followed by the

Annual Address of the President.

The daily papers of Nashville, Tenn., speak of the Annual Address of the President, delivered by Dr. Hunter McGuire to the Association, as an eloquent tribute to the gallantry of the Southern people, and the devotion of the physicians, who followed the Southern armies through vic-

tories and defeats. The Address is published below, omitting the introduction and other portions referring particularly to the Association and its objects.

"It may be said with truth that, until of late, the South has not kept pace with the North in medical progress and development. This has arisen from a variety of causes. Prior to the late war, slavery was antagonistic to the development of dense populations; fertile areas were monopolized by the large planter, and he generally occupied more space than his agricultural needs required. He believed in what he called 'plenty of elbow room.' He was opposed to outside intruders, and desired neither the development of towns nor the growth of cities in his vicinity. Criticise this policy as you may, condemn it if you will, I am not engaged in defending it, but am merely stating patent facts, in order to account for the manner in which it retarded the development of medicine. While this was true, yet this state of society produced splendid men and women, probably the grandest on this Continent. Culture, grace, elegance, self-reliance, were its legitimate offshoots. Orators, poets, statesmen, soldiers, scientists, lawyers, ministers, and physicians, the first and greatest in the whole land, came out of it. What orator have we like Henry or Yancey, what poet like Poe, what scientist like Mathew F. Maury, what statesman like Jefferson, what jurist like Benjamin, what divine like Hoge, what soldier like Stonewall Jackson, what surgeon like Sims? And the women—how can I describe them! They were as cultured as they were refined; they were as beautiful as they were queenly, the loveliest of sweethearts, the noblest of matrons.

"Let us look for a moment, and see from whence these people of the South came, and what they have done.

"The colonial settlers of the Southern portion of North America were kindred by ties of blood, by association, and by the laws of common inheritance. They came to this country deeply imbued with the idea of civil liberty. In many instances, they were descended from a superior element of the English people. The blood of the cavalier coursed through their veins; they were prepared to organize a government, to undertake the herculean task of creating a country out of chaos. And they accomplished it.

"To these settlers were soon afterwards added another stream of emigrants who came into the South through Maryland and Virginia, and through the seaports of the Carolinas and Georgia. These were the God-loving, tyranny-

nating Scotch-Irish, who have left their distinguishing characteristics, to this day, upon the people of every State in the South, from Maryland to the Rio Grande.

"When the struggle came for the defence of their rights against the Mother-Country, how quickly her sons took up arms in defense of the common cause, and how nobly they performed their part, it is useless to say, for is not the history of the time filled with accounts of their patriotism and achievements? At the council board, on the platform, and in the field, they stood pre-eminent. The enunciation of principle, the declaration of rights, sprung from the fertile brain of a Southerner, and to-day the readers of American history recognize in Jefferson the foremost thinker of his age. Well has a New Englander, in speaking of Washington and the Southern soldiers of 1776, recently said: 'We must go back to Athens to find another instance of a society, so small in numbers, and yet capable of such an outburst of ability and force.' Without the men of the South, the Revolution of 1776 would have gone down into history as the rebellion of that period.

"Men of southern birth and southern rearing were the successful Generals in the war of 1812, and the central figures in 1846. The acquisition of territory was made during the administration of Southern men. Louisiana, Florida, Texas and California were acquired during their terms of office. Upon the Supreme Court bench of the United States they are to be conspicuously found. The Chief Justiceship was held continuously for sixty-three years by Southern men. I need not speak of the orators and statesmen produced in every State in the South—they are household names.

"History but repeats itself—like occasions produce like results. The patriot of to-day is but the reflex of the patriot of the past. In our late civil contest—if it be proper to call it so—for was it not rather two sovereignties waging war, the one against the other? the men of the South once more displayed the same great qualities that had characterized their ancestors in the American Revolution.

"Modern Europe stood aghast at the daring of a people they had been taught to regard as effeminate. They had expected that an ephemeral struggle would be made near akin to those which had frequently taken place among the mixed Spanish population to the south of us. Climate, temperature, the pernicious effects of slavery, were all believed to have had their influence, and to have produced a

weak and vacillating people. Had luxury enervated them, had they become effeminate, had the increase of wealth and the impress of slavery, rendered them physically and intellectually inferior to the men of the North? If any so believe, let the deeds of arms that have passed into history speak. Examine the details of the well-contested battle-fields, and see if such a declaration is true. Jackson, Lee, Johnson, Claiborne, Stuart, and Forest! What tender thoughts, what hallowed associations, gather around the names of these bright stars in the Southern constellation! Does all history, does even the field of romance, furnish heroes superior, or patriots more noble? They were the leaders of an equally brave and noble people, who, when all save honor was lost, submitted to the inevitable with a dignity born only of true greatness.

And now of the Confederate Surgeon let me say a word. How can I express, in adequate terms, my admiration for him! He possessed virtues peculiarly his own. Coming from civil life, it was wonderful to see how rapidly he adapted himself to the discipline of the army, and conformed to the requirements of military life. The hardships he endured, and the privations to which he was subjected, soon transformed him from a novice to a veteran; and I can say, with truth, that before the war ended some of the best military surgeons in the world could be found in the Confederate army. His scanty supply of medicines and hospital stores made him fertile in expedients of every kind. I have seen him search field and forest for plants and flowers whose medicinal virtues he understood and could use. The pliant bark of a tree made for him a good tourniquet; the juice of the green persimmon, a styptic; a knitting-needle, with its point sharply bent, a tenaculum; and a pen-knife in his hand, a scalpel and bistoury. I have seen him break off one prong of a common table-fork, bend the point of the other prong, and with it elevate the bone in depressed fracture of the skull and save life. Long before he knew the use of the porcelain tipped probe for finding bullets, I have seen him use a piece of soft pine wood, and bring it out of the wound marked by the leaden ball. Years before we were formally told of Nélaton's method of inverting the body in chloroform narcosis, I have seen it practiced by the Confederate Surgeon. Many a time I have seen the foot of the operating-table raised to let the blood go, by gravitation, to the patient's head, when death from chloroform was imminent, and I will add that, in the corps to which I was at-

tached, chloroform was given over 28,000 times, and no death was ever ascribed to its use. Many of the medical officers of this corps were wounded or killed on the field. One, I saw fall at Strasburg, amid the cheers of soldiers at the evidence he gave of devotion to duty. Another, at Sharpsburg, facing an assault before which even veterans quailed and fled; and a third I found upon the bloody field of Cold Harbor dying with a shell-wound through his side. As I knelt down beside him, and told him his wound was mortal, he answered, 'I am no more afraid to die, than I was afraid to do my duty.' They were splendid specimens of a noble race—a race whose achievements astonished the world and wrung from the foe himself a full measure of praise. During the terrible six days which followed the retreat of our army from Richmond, the medical men, by their unswerving devotion to duty, and cheerful support, contributed no little to inspire the heroism which turned our defeat into honor, and made Appomattox one of the proudest memories of the war.

"The social condition of the South, while it offered unusual and rare advantages to her sons generally, denied to the medical men, save in exceptional instances, the opportunities which were conducive to the progress and development of medicine. This peculiar Society gave to them, however, boldness of thought, independence in investigation, and they possessed the courage of their convictions; they thought well and they thought clearly; they fought their way into position at every leading medical centre in the country. Many of them started life in small towns or rural districts; and after testing their strength and gaining the confidence born of experience, they generally moved to the larger cities, North and South. Is it more than necessary to mention Frick, Goodman, and Smith, of Maryland; Hartshorne, Chapman, Horner, Mitchell, Mutter, and J. L. Cabell, of Virginia; Jones, Chas. Caldwell, and Dickson, of North Carolina; Geddings, Bellinger, Toland, and Sam. H. Dickson, of South Carolina; Miegs, Arnold, Bedford, and Anthony, of Georgia; Eve, of Tennessee; Nott and Baldwin, of Alabama; Stone and Jones, of Louisiana; Dudley, McDowell, and Yandell, of Kentucky, to recall to your minds the great instructors in medicine in this country?

"How well they performed their part is prominently shown in the lasting impressions they have left behind them. Historic they are, and historic they will continue to be; untold generations will arise to bless them, and they will not fade into obscurity through the lapse of time.

"How can I speak except in terms of reverence and praise of the practitioner who remained with his country clientele, and yet established national reputation; struggling under disadvantages which can only be appreciated by those similarly situated—with paucity of material, and the absence of professional association—with the requisite elements of success arrayed against him—he must be a man of genius who advances an idea, demonstrates a fact, constructs a principle, or invents an operation of sufficient importance to arrest the attention of the medical world; truly he must be a man of profound genius.

"Of such men were Crawford Long, of Georgia; Mettauer, of Virginia; McDowell, of Kentucky; Sims, of Alabama—Sims, the greatest and grandest of all the men who have recently passed away. Satisfying the requirements of a continent, he traversed the ocean in order to give to Europe the benefit of his learning and experience. He claimed among his patients one or more members of the crowned-heads of Europe. The relief that he afforded suffering humanity from diseases that before his day were classed as incurable, can only be estimated by those who have examined the subject in detail. He was the pioneer of gynæcological and abdominal surgery. The fundamental truths established by him will be remembered, their utility recognized, and their principles applied, so long as surgery is a science.

"He passed away in the full zenith of his glory, renowned, beloved, and respected. The bronze statue, that is to be erected by his professional friends over his mortal remains, will bear but feeble attestation to the reverence with which he is regarded by the civilized world.

"Would that good taste and the proprieties of this occasion permitted me to mention the names of men in the profession, living now in the South, who have achieved for themselves great renown. Some of these gentlemen I see before me to-night, and I congratulate them upon the fame fairly won by their genius. To the medical students, here in such numbers this evening, these distinguished men will say, as they of all others know, that genius is only hard work well-directed. Some future speaker, filling the place I occupy now, in fitter and more eloquent words, will tell another audience the names of these men, and they will go down into history as great and grand as those that I have just mentioned.

"Organization must be our watchword. In a country, where all is progress, where material resources are being

rapidly developed, the medical men of this section must not prove laggards.

"Agriculture is in a state of progressive advancement. Our mineral wealth is at least appreciated and turned to valuable account; the hum of the loom, the ring of the anvil, and the sound of the forge, resound throughout the land. Our waste places are no longer desolate; the increased growth of agricultural products is amazing. The cotton crop of 1888 is more than double the crop of 1860—the time at which was believed the South had reached her hey-day of prosperity.

"Last year (1888) the value of the crops in the South was the largest on record, and yet this year (1889) the value of her agricultural products alone, it is estimated, will be increased $125,000,000. Statistics show her rapid growth in other industries to be fully as great, if not greater. And this is the legitimate outcome of the courage, sagacity, and industry of her own people—a people born and reared under the Southern sun. For there is no new South; the blood of her patriots of the past flow in the veins of her people to-day, unmixed by any other strain. Blessed with an unequaled climate, with fertile lands whose products are most varied and abundant, with coal, minerals and precious stones in quantities exceeding the wildest imaginations, inhabited by a people who have shown to the world their patriotism, endurance and valor with the surplus negro population relegated to Mexico, towards which country, in the providence of God, it is now drifting—the South is advancing and improving in every way. * * * *

"Gentlemen of the Southern Association, let our motto be, lofty aim and united action. As Southern men, let us show to the world that, under changed conditions, we have still the stamina of our forefathers. As members of our beloved profession, let us strive to be first in scientific attainment, first in integrity, first in high purpose for the good of mankind."

Second Day—*Morning.*—Dr. George J. Engelmann, of St. Louis, Mo., read a paper on *Menstruation and Pregnancy After Removal of Both Ovaries.* He thinks the continuation of menstruation in cases of supposed removal of ovaries is due to remnants of ovarian stoma left *in situ.*

Dr. John D. S. Davis, of Birmingham, Ala., then read a paper on

An Experimental Study of Intestinal Anastomosis.

He reported thirty-two adhesive experiments on dogs, and seventy-nine successful anastomotic operations by means of his approximation cat-gut mats and cat-gut plates for the purposes of illustrating the advantages of denuding the coaptation serous surfaces, and the integrity of his cat-gut mats and plates. He reported two applications of anastomosis to man. The first ileo-colostomy for obstruction in the region of the ileo-cæcal valve, by means of cat-gut mats. The second, jejuno-jejunostomy, for multiple gun-shot injuries of the jejunum, with resection and lateral approximation, by means of cat-gut plates.

His paper was replete with suggestive advantages of anastomosis over circular enterorrhaphy—based on experimental facts. His anastomotic devices consist of cat-gut mats and cat-gut plates—oval and horseshoe.

The mats are made of cat-gut in the following manner: A large, continuous four-rib cat-gut frame is held in an oblong shape by four artery forceps, while the frame is being interwoven into an oval mat, by means of a small cat-gut thread armed with a needle. The coaptation threads are fixed by passing a needle and thread between the two mid-ribs and so returned as to loop two or three of the small cat-gut sutures used in weaving the ribs together.

The plates are made of any size, by means of an ordinary pocket-knife, from a large one-eighth inch thick, dry compressed plate of uncut gut tissue, made for the author by Mr. Wm. Snowden, Philadelphia. The coaptation threads are fixed by passing them through the small perforations, made by means of a large needle or a small awl, and tying a knot in the end of each thread.

The horseshoe plates are made from the oval plates by cutting out one end of each of the oval plates. The horseshoe plates are used for closing, in a hinge manner, extensive gun-shot wounds of the convexity of the bowel.

His paper closed, inviting discussions on the following propositions:

1. Approximation cat-gut mats may be made of any size, in less than an hour.

2. Approximation cat-gut plates may be made of any size, in ten to fifteen minutes.

3. Approximation horseshoe plates are very valuable in intestinal repair from gun-shot injuries of the convexity of the bowel.

4. Approximation cat-gut mats and plates absorb away

in 48 to 60 hours in gastro-enterotomy, and in 70 to 80 hours in operations below the stomach.

5. Anastomosis, by means of approximation cat-gut mats or plates, furnishes the best conditions for the healing of the visceral wound.

6. Anastomosis can be performed, by means of cat gut mats or plates, without division of bowels, in five minutes; and with division and resection in fifteen minutes, including a continuous outside safety silk suture around the circumference of the mats or plates.

7. Denuding the peritoneum at the seat of coaptation, hastens the exudation of plastic lymph, the formation of adhesions, and the definite healing of the intestinal wound.

8. When coaptation surfaces have been denuded of their endothelial coverings by mechanical scrapings, plastic adhesions readily take place, and definite healing by the formation of a net-work of new blood vessels in the product of tissue proliferation from the coaptation serous surfaces, is initiated in eighteen hours.

Dr. A. V. L. Brokaw, of St. Louis, Mo., read a paper entitled,

Intestinal Anastomotic Operations with Segmented Rubber Rings, with some Practical Suggestions as to their Use in other Surgical Proceedings.

The paper considered in detail the results obtained in an experimental study of all the anastomotic operations, and an original technique and application of segmented rubber rings in such operations as gastrotomy, duodeno-cholecystotomy, jejuno-cholecystotomy, ileo-colostomy and circular-enterorrhaphy. Reference at length was made to the author's success in closing very large wounds of the intestines, by the use of a single segmented rubber ring, formed of eight short sections of tubing. The ring being introduced into the intestines, is bent evenly upon itself and the apposition threads being tied, perfect, safe closure of the very largest wound is accomplished without stenosis following. The ring devised by the author, is very simply constructed, by passing a double strand of cat-gut continuously through from four to eight short sections of rubber drainage tubing, of a diameter from one-sixteenth to one-fourth of an inch. To the cat-gut, within the rubber sections, are tied the apposition threads. The segmented rubber rings are applied in the anastomotic operations in the same manner as Senn proposed in the use of his bone plates. The advantages of segmented rubber rings over other procedures and devices,

is the rapidity with which they may be made during an operation, if need be. In the absence of proper tubing, pieces of catheter could be substituted. For the closure of small wounds in the intestines, a new suture was proposed. Short rods of decalcified bone, one-sixteenth of an inch in thickness, and one-fourth of an inch in width, are perforated at points, less than half an inch apart, for the passage of the apposition threads which are attached in this manner: a strand of chromatized cat-gut, or well prepared Juniper cat-gut, is doubled, and a single knot made in the middle of this doubled cat-gut strand, (silk may be used if preferred), the loop and end threads are passed through the small opening made in the decalcified bone rods. Each thread and loop are threaded to separate needles, the rods introduced in the wound in the bowel, the needles passed from within outward less than a quarter of an inch from the wound margins, and the loops and single threads tied in pairs. For this method was claimed accurate, rapid, and safe closure of small wounds of the intestines. The author preferred a segmented rubber ring in the closure of large wounds.

A description of two new wholly absorbable apposition rings were given, which has experimentally shown very excellent results. One was formed by decalcifying the long bones of chickens and young animals—the process of decalcifying being the same as for making bone-drainage tubes. With short sections of bone so prepared, and a double strand of cat-gut, the rings were made in a manner similar to the described segmented rubber rings. The second wholly absorbable ring was made of short sections of the arteries of large animals. After dissecting the arteries up from their sheaths, they are cut in short segments, boiled five minutes, and in the lumen of each section, is pushed a glass rod, and they are then immersed in alcohol for a few days. When the rods are withdrawn, the hardened artery tubes are ready for use. With four to eight short sections of arteries so prepared, approximation rings are easily made by passing a double cat-gut strand continuously through the lumen as described previously. These rings serve their purpose admirably, are very easily made, give a good-sized aperture, and are entirely absorbed in a few days. Experiments were made upon over fifty dogs by the above methods.

During the Afternoon Session, Dr. B. E. Hadra, of Galveston, Texas, read a paper on

Open Abdominal Treatment.

As a rule, very effectual and satisfactory results are obtained from abdominal surgery in chronic inflammatory diseases, and in combating their products The treatment, however, of *acute septic diffuse peritonitis*, as met with in septic child-bed fever, and especially after intestinal perforation, is not yet crowned with great success.

The reasons why a general infection of the abdominal cavity is more dangerous than that of other cavities and parts are—

1. The extensive area of the peritoneal surface, together with its enormous power of resorption.
2. The rapid transudation of fluids which serve as fertile soil for the propagation of the microbes.
3. The rapid distribution of the poisonous material by intestinal peristalsis.
4. The quick resorption by the lymphatics of the diaphragm.
5. The infection of the bowels from without, and the additional infection of the peritoneum from transudation through the diseased walls of the intestines, thus producing mutual infection.
6. The distended bowels pressing the infected fluids into the lymph circulation.
7. The impeded respiration, defecation and secretion of urine leading to systemic poisoning by retention in cases of tympanites
8. The contamination from fæcal matter in perforative cases, and from foreign septic matter in stab and gun-shot wounds, and especially from hæmorrhage.

From these facts the Doctor deduces the following indications for treatment:

1. To remove as much of the obnoxious matter, (germs, fæces, blood, etc.,) and as thoroughly and as often as necessary.
2. To keep the cavity dry.
3. To counteract pressure and suction.
4. To preserve the health of the intestinal walls by keeping them clean and by removing pressure.
5. To keep distended and diseased bowels out of the cavity.

Can the above indications be met by the surgical methods of to-day? No; because even the boldest surgical interference, *i. e.*,—multiple incision and drainage—does not offer enough facilities to keep the nooks and folds of the cavity

thoroughly clean and dry. Pressure is not sufficiently relieved, and the bowels are not removed sufficiently to avoid both their own injury and that to the peritoneum from their contaminating contents. He therefore argues that it would seem best to treat the abdominal as we treat other large contaminated cavities—by fully exposing them and by freeing them from irritating contents.

A large incision should be made, the distended bowels kept outside, and frequent general washings with warm water be made until the danger is over. Then the abdomen should be closed. The details were given in full. Then the author tries to meet all objections, and strengthens his position by one—though rather restricted—experience on man, but more so by several experiments on animals, all of which recovered from incisions left ununited.

Twenty Consecutive Cases of Abdominal Section.

Dr. L. S. McMurtry, of Danville, Ky., reported twenty consecutive cases of abdominal section for various pathological conditions. The cases were reported as a basis for discussion of this important class of surgical and gynæcological cases.

All the cases were operated on in private practice—all but two at their own homes; two were private patients in a well-appointed hospital. With a very few exceptions, the operations were performed without the aid of skilled or trained assistants.

Seven of the twenty were cases of ovarian cyst; five were cases of tubo-ovarian disease; there were three cases of purulent peritonitis; two of tubercular peritonitis; two cases of extra-uterine pregnancy; one supra-vaginal hysterectomy for uterine myoma, and one purely exploratory operation. With one exception, all the operations were done *late*, when all other resources of treatment were exhausted; and in several instances all hope of the patient's recovery had been practically abandoned by the medical attendant. There were three deaths. (See appended table.)

In the first cases of the series carbolic acid was used for the sponges, ligatures and instruments in operating, and for the operator's hands.

In the seven last cases, only thorough, painstaking cleanliness was observed, using boiling water for sterilizing instruments and ligatures. He has gradually made his ope-

rative technique more simple, using fewer instruments and trusting more and more to his fingers. The cleansing of instruments, preparation and preservation of sponges and dressings, preparation of the patient, and all details, receive his special personal attention.

As experience increased, he has resorted more frequently to the drainage-tube, and relied more upon irrigation for the removal of clots and debris in lieu of prolonged and elaborate sponging.

He endeavors to work through a small incision, and aims at thorough and rapid, but not hasty, operating. He considers prolonged anæsthesia a prominent factor in the profound shock which too often follows abdominal operations.

Every operator will be more impressed with the difficulties attending diagnosis of intra-abdominal disease as his experience and observation grow. As a rule, the plan of procedure will be decided after the incision is made and the fingers introduced. When the line of action has been determined upon, it should be pursued boldly to completion. Incomplete operations, as a rule, end in disappointment and disaster.

The cases of ovariotomy illustrate the increased difficulties made by delay and tapping. All but one case had been tapped, and in all but this one the operation was complicated by dense, extensive, and (in two cases) universal adhesions.

The cases of chronic inflammatory disease of the uterine appendages illustrated several grades and varieties of intra-pelvic inflammation. These cases were formerly classified and treated as pelvic cellulitis. The inflammatory process, beginning in the endometrium, extends by continuity to the tubes and ovaries. The infection in two of these cases was undoubtedly gonorrhœa: in others, it was traceable to the puerperal state.

In all these cases, the women had suffered long, and in three cases large accumulations of pus were found. The one fatal case (No. 18) was in an extreme and wretched condition when section was done. The left tube and ovary were destroyed by suppuration, and had formed the centre of an abscess filling the entire left side of the pelvis. She was septic and emaciated. An early operation would doubtless have saved her.

Thirty years ago, Bernutz and Goupil described the true pathology of pelvic inflammations; but it is only of late

that the results of infection of the endometrium and Fallopian tubes have been accepted and applied in treatment.

This is one of the recent advances in pelvic surgery, and has opened a new era in the treatment of a class of cases which have long been among the opprobria of gynæcological practice. A want of careful selection of cases and injudicious resort to removal of the appendages in certain quarters, has done this procedure harm, but properly applied it saves life and restores health.

The result of no case in the entire list has proved more satisfactory than that attained by supra-vaginal hysterectomy for uterine myoma (No. 15). The tumor was very large, soft, œdematous, and fluctuating, weighing *en masse*, with the body of the uterus, after removal, twenty-one pounds. The patient was emaciated and suffering severely from pressure upon the digestive organs and bladder. The broad ligaments were ligated and divided down to the level of the internal os, and the pedicle treated extra-peritoneally with the *serre-neude*, as practiced by Bantock. The patient made a quick, uninterrupted recovery, and is restored to good health.

This case, and the others of the series, could furnish no field for treatment with electricity, and to have witnessed the pathological conditions and complications as dealt with at the operating table, would have satisfied any intelligent surgeon of this fact.

The after-treatment in all cases was very simple. For the first two days nothing but small draughts of hot water are given; on the third day, small quantities of bland food are administered. The bowels are moved by a Seidlitz powder on the third day. Opium is firmly and persistently avoided.

The appended table furnishes an outline of twenty cases, taken consecutively from the author's surgical experience:

No	Age	Pathological Condition.	Adhesions	Drainage	Result.	Remarks.
1	32	Ovarian Cyst.	Slight	No.	Recovery.	
2	29	Ovarian Cyst.	Extensive.	No.	Recovery.	Very large tumor; omental and intestinal adhesions.
3	27	Ovarian Cyst.	Extensive.	No.	Recovery.	
4	31	Ovarian Cyst.	Dense and Extensive.	Yes.	Recovery.	
5	29	Cirrhotic Ovaries and Chronic Salpingitis.	Dense.	No	Recovery.	Ovaries and tubes removed; patient had been an invalid for years. Complete cure.
6	17	Cancer of Intestines.		No.	Recovery.	Operation purely exploratory; caput coli and ileum a cancerous mass; patient died soon after from the disease.
7	65	Tubercular Peritonitis; Encysted Dropsy.		No.	Recovery.	Patient in good health, 3 years after operation.
8	35	Suppurating hæmatocele, peritonitis.		Yes.	Recovery.	
9	35	Pyosalpinx and General Purulent Peritonitis.		Yes.	Recovery.	Appendage removed; drainage tube kept in 28 days; complete recovery.
10	31	Typhiitis, Perforative Peritonitis.		Yes	Recovery.	Double perforation of cecum; purulent peritonitis; first case of non-traumatic perforation on record saved by laparotomy.
11	34	Extra-Uterine Pregnancy.		Yes.	Death.	Large fetus, past viable period dead and decomposing; septic symptoms preceding operation. Death from hæmorrhage.
12	28	Tubercular Peritonitis.		Yes.	Recovery	Patient died afterward with pulmonary lesions.
13	31	Large Ovarian Cyst; Pyosalpinx on opposite side.	Universal and Dense.	2 Tubes.	Recovery.	Patient *in extremis* at time of operation from peritonitis; irrigation of peritoneum for 10 days. Complete cure.
14	27	Cirrhotic Ovaries.	Dense.	No.	Recovery.	Ovaries and tubes removed; patient invalid for 6 years prior to operation; convulsions, opium habit; marked improvement.
15	29	Uterine Myoma; soft and œdematous.	Extensive.	No.	Recovery.	Supra-vaginal hysterectomy; mass weighed 21 pounds; œdematous; severe pressure symptoms; extra-peritoneal pedicle; prompt and complete recovery.
16	39	Double Ovarian Cyst.	Dense.	Yes.	Death.	
17	36	Ovarian Cyst.	Dense.	Yes.	Recovery.	Had been tapped with trocar four times; very large cyst, weighed 42 pounds.
18	40	Ovarian Abscess and Pyosalpinx.	Dense.	Yes.	Death.	Patient *in extremis*, emaciated, night-sweats; pigmented skin; very large abscess cavity; death ten days after operation.
19	29	Extra-Uterine Pregnancy.	Dense.	Yes.	Recovery	Ruptured tube; pelvis filled with blood-clot. Complete recovery.
20	36	Cystic Ovaries; Chronic Salpingitis.	Firm.	No.	Recovery.	Appendages removed. Cure

Dr. Richard Douglas, read a paper by Dr. J. W. Long, of Randleman, N. C., on

What Kind of Instruments Modern Antiseptic Surgery Demands.

Dr. Long called attention to the importance of having the tools with which we work in harmony with the end desired—*i. e.*, if we are striving for *aseptic results*, our instruments must be *aseptic*. How often we blame a nurse or assistant for a bad result, when, in fact, the source of infection is the instrument with which the operation was done. He said we could look for nothing better while we used instruments with wooden handles, abounding in screws, double joints that cannot be opened, and many other complicating devices that are peculiar to surgical instruments. The only kinds of handles admissible were *metal* and *baked rubber*, (vulcanized) handles. Both of these can be boiled for any length of time without injury, which is the best way to cleanse instruments, and which can not be said of any other kind of handles.

In *joints* he advocated only *open* ones, either the French joint—which is by no means perfect—the Dixon joint, or a new one, resembling somewhat the obstetric lock. He emphasized the absolute necessity of constructing instruments so they can be *easily*, as well as thoroughly, cleansed. An instrument that is difficult to clean, is usually not cleaned at all. Therefore, the greater need for open joints. The construction of the jaws and teeth of instruments was discussed. He noticed particularly, that the ridges and teeth of the jaws should not be too close together; and the angle between should be obtuse and rounding, so that blood, dirt, or anything that might lodge there, could be easily removed with a stiff nail brush.

His paper was not only intensely practical, but is another indication that those men who appreciate the *principles* of aseptic surgery are striving to eliminate the superfluities and non-essentials that theoretical minds have foisted on modern surgery, and to present the subject in a plain, practical, useful way. This paper was elaborately illustrated by wood cuts and an exhibit of a large number of instruments.

During the Night's Session, Dr. G. Frank Lydston of Chicago, Ill., read a paper entitled—

Tropho-Neurosis as a Factor in the Phenomena of Syphilis.

This paper was interesting as bearing upon the relation of disturbances of the trophic function of the sympathetic

nervous system, which the author claimed were the essence of all of the phenomena of syphilis. He said the relations of certain syphilitic phenomena to organic or functional disturbances of the nervous system, and particularly the sympathetic system, are manifested here and there along the whole line of morbid phenomena developed in the course of the disease. Syphilitic fever is undoubtedly dependent upon the action of a special poison upon the sympathetic nervous system. From what we know of the trophic functions of the sympathetic, we are justified in inferring that the majority of fevers are dependent upon the action of a specific poison upon the sympathetic ganglia. The syphilitic poison may produce disturbances of the sympathetic with perversion of tissue metabolism and excessive production of heat. The inconstancy of the syphilitic fever is explicable upon the ground of idiosyncrasy. The syphilitic roseola has been demonstrated to be an exception to the rule that syphilitic lesions are due to a collection of proliferating cells. It is due to vaso-motor disturbance with resulting dilatation of capillaries. This nervous disturbance is dependent upon the impression of the syphilitic poison upon the sympathetic ganglia. The accumulation of cells in the more pronounced lesions of syphilis is simply an exaggeration of the normal process of tissue-building. As is well known, such tissue-building is presided over by the filaments of the sympathetic nerve.

The symmetry of the peripheral phenomena of syphilis is suggestive of some causal condition affecting the central nervous system. As an illustration of the manner in which a nerve-lesion could produce disturbed nutrition the author mentioned herpes zoster. Some of the lesions of syphilis, which are difficult of explanation upon mechanical grounds —*i. e.*, upon the theory of localized cell accumulation, are readily explicable by central or local nervous disturbance. For example, the alopecia of syphilis is similar to that which occurs in other diseases as a consequence of local and general malnutrition incidental to disturbed nervous supply—as, for instance, alopecia areata, the alopecia produced by fevers, and the alopecia produced by neuralgic affections of the head. That the nutrition of the hair is profoundly affected by nervous disturbances, is shown by the result of fright in producing blanching of the hair. The syphilitic infection not only has a peculiar affinity for the sympathetic nervous system, but especially for the upper and cervical portion of the sympathetic. In cases under skillful treat-

ment, the proportion of lesions of the head, face and mouth is larger than in other portions of the body. The parts supplied by the fifth cranial nerve appear to be particularly susceptible. The majority of cases of syphilis, under proper treatment, escape general cutaneous eruptions. Very few, indeed, escape alopecia, sore throat, and mucous patches. Serious destructive ulceration of the pharynx and nasal, palatal and maxillary bones is very frequently met with in cases in which the active period of the disease has been apparently very mild. The affinity of the syphilitic process for the iris is explicable from the importance of the filaments of the sympathetic supplied to the part. Even in congenital syphilis, we see evidences of tropho-neurotic disturbance. The affinity of the disease for the epiphyso-diaphyseal junction of the long bones is certainly suggestive.

In reviewing the opinions of our best syphilographers, one is impressed with the fact that syphilis is a disease which runs a natural course in spite of treatment. This is characteristic of certain special diseases in which the sympathetic system is profoundly impressed.

One of the principle arguments in favor of the theory, that tropho-neurosis is the foundation of syphilitic processes is the peculiar action of the disease when it attacks certain parts, syphilis seemingly possessing the power of dissecting out definite portions of osseous tissue (apparently by cutting off their nutritive supply) in a manner as cleanly as it can be done by the knife. Thus Dr. L. has specimens in his possession of the intermaxillary bone, portions of the alveolar process of the maxilla, the palatal and nasal processes of the superior maxilla, the malar and ossa nasi, which became necrosed and were removed from cases of late syphilis. These fragments present as natural a conformation as in their healthy condition. The ordinary explanation of destruction by pressure of syphilitic exudate will not suffice in these cases. If they be observed carefully, it will be found that the first symptoms experienced by the patient are those incidental to the presence of a foreign body—*i. e.*, a dead bone in the tissues. If pressure were the cause of the necrosis, the death of the bone would be preceded by more or less painful swelling and inflammation. There is no plausible explanation of these cases excepting a perversion of the trophic function of the nervous filaments supplied to the part. He claims that all of the pathological processes incidental to syphilis are due to disturbances of nutrition produced by the impression of the syphilitic poison

upon the sympathetic nervous system, and that it is immaterial to the cogency of this theory whether the poison of syphilis be a microbe, bacillus, degraded cell, or chemical poison. It is probable that this idea, or something similar, has occurred to others; but if any attempt has been made to show that tropho-neurosis is the basis of all syphilitic phenomena, he is not aware of it.

Dr. Lapthorn Smith, of Montreal, Canada, read a paper entitled,

What Civilization is Doing for the Human Female.

He did not wish to criticise so much as to point out that it was slowly, but surely, working certain changes in the human female, both in health and disease. He showed how, during the course of years, women were gradually losing their muscular system, owing to so much being done for them and to their doing so little for themselves. This might be seen in the diminished strength of their arms, inability to walk any distance, weakness of the abdominal walls of the intestines, and thinness of the perineal muscles, which were seldom used in defecation and hardly at all in coition. This weakness of the muscular system was not natural to women, as in some countries they were more muscular than the men.

He then gave a list of the various *injuries inflicted by corsets:* (1.) Preventing the diaphragm and lower ribs from taking part in the act of respiration, so that women were now incorrectly described by physiologists as having a costal respiration different from men, which has been proved not to be the case in women who have never worn corsets. (2.) Not only does the corset diminish the aerating power of the lungs, but it lessens the quality of the blood. (3.) Corsets compress the heart so as to interfere with the disatole of the heart—the latter having no power of its own to open. Many cases of death from syncope are on record. (4.) Congestion and enlargement of the liver, due to limited pumping power of the diaphragm. This was especially important, as it compressed the inferior vena cava as it passed up behind the liver, so that there was a damming back of blood in all the branches where they emptied into it, causing passive congestion of the pelvic organs, and in many cases varicose veins. (5.) The corset hampers the peristaltic movements of the intestines, leading to fæcal poisoning of the system, called by Sir Andrew Clarke, "fæcal anæmia." (6.) The corset constricts the waist so much as to still further inter-

fere with the upward passage of the venous blood and lymph. The venous blood from the left side of the pelvis, is still further prevented from getting out of the pelvis by the pressure of the loaded rectum pinching the vein at the brim, and also by the left ovarian vein emptying into the left renal at right angles to the current. Many cases of pain in the left side of the pelvis, due to varicose veins of the broad ligament, and many a removal of the ovary might be avoided by removal of the corset.

That department of civilization called fashion, by suspending some nineteen pounds of clothing from the waist, was still further impeding the circulation of the pelvis.

Education was at the present time, he thought, inflicting a serious wrong upon women in several ways: 1st. By preventing the young female from running about like her young brother. 2d. By keeping her for many hours a day in close confinement in a vitiated atmosphere, in a faulty position in school, where, supporting the weight of her body on her left arm, the muscles of her back on the right side were no longer used, and therefore, atrophied, causing lateral curvature. This atrophy of the muscles of the back in women was proved by the projection of the spines of the vertebræ, instead of being buried between the erector spinæ muscles. He thought that many of the backaches that women complained of, were due to weakness of these muscles, and were often treated erroneously as due to disease of the pelvic organs. 3d. By over-stimulating the nervous system, so that while women were doing less than ever before, they were thinking and feeling more. This is seen in the greater rapidity of transmission of nervous impulses among the more highly educated. It has also been proved that women are far less able to bear pain now than they were formerly; also that functions which were formerly physiological and pleasurable, have now become painful and indifferent; for instance, digestion, defecation, coition and delivery.

This supremacy of the nervous system, among highly civilized women, gives a new complexion to all their ailments, characterized by their symptoms, as a rule, being altogether out of proportion to their actual disease; so that muscles of the uterus, for instance, when only fatigued, give pain as though they were diseased; consequently functional disorders were sometimes treated as severe organic ones. This nervous over-development is so common, that taking bromides and chloral to calm the nerves has become a necessity to thousands of women in this country.

With regard to *child birth several changes* are taking place. 1st. Dilatation is becoming more painful, being now agonizing, instead of almost painless. The time required for it is becoming greatly lengthened in duration, owing to diminished power in the uterus. The muscles make a great outcry, but do very little work. 2d. Dilatation by hydrostatic pressure is often wanting, because the amniotic membrane breaks at the very beginning of labor, causing what is now very common, a dry labor, in which dilatation is performed unequally by the child's head. He thought laceration of the cervix would be impossible if the membrane remained intact until dilatation was complete, and if no examining finger were introduced. 3d. The recumbent dorsal position after labor, led to retroversion with leakage of secretions through the tubes into the peritoneal cavity with pelvic peritonitis and fixation of the tubes and ovaries. 4th. According to the law of the survival of the fittest, the woman with the narrow pelvis, if left to nature, would die, and thus would perish that breed of women; but by the intervention of art, she is preserved to have several ill-formed daughters, so that we may expect such cases to become more common as is the case. 5th. While civilization is making the pelvis smaller (by atrophy of the muscles attached to it, etc.,) it is also making the head of the child larger, for in the struggle for existence the big headed man and not the strong armed one has the best chance of survival. Art steps in to save those big headed children whom nature used to exterminate.

Lastly, civilization is gradually removing the sexual feeling from women. This may be explained in two ways: 1st. By educating them to repress these feelings since several centuries. 2d. By natural selection of civilized men, generally choosing for marriage those women who can best conceal their sexual feelings, and who will consequently transmit this quality to their female children, while the women who cannot repress their sexual feelings, are generally not married, and so die out. This, of course, becomes possible, by the fact that in women, sexual feeling is not at all necessary to propagation. Men, on the contrary, are becoming more and more passionate, because, unless a man has strong sexual feelings, he will not marry, and therefore die childless. He knew of several families where, for several generations, this process of losing sexual feeling among the females, and of acquiring it more strongly among the males, has been steadily going on.

THIRD DAY—*Morning.*

Gun-Shot Fractures of the Femur.

Dr. John Brownrigg, of Columbus, Miss., read a paper with this title. He did not review the authorities, nor the treatment of leading surgeons, but confined himself to improvements in treatment. He does not think there was sufficient counter-extension in the appliances used during our civil war; hence a shortening of from one-fourth of an inch to eight inches, an average of 2.30 inches. He cannot accept the opinion that it is wrong to apply more than from five to ten pounds weight for extension. The opinion held by high authority that if a hiatus is left when there is loss of a portion of the bone, union will not be secured, he believes to be erroneous, as he has often observed bone and flesh growing together in open wounds; in such cases, the bone grows faster than the flesh. He has seen a hiatus of four inches, where bone and periosteum were both shot away, filled by growth of bone from both fractured ends, until the ends met. Sufficient extension in these cases, he believes, would prevent shortening; and this necessitates sufficient counter-extension.

He accomplishes this with a jacket of cotton cloth to fit the chest, with a band sewed to its lower margin, buckled securely below the ribs. This jacket presses on about five hundred square inches of tough skin, and embraces in its grasp the bony frame-work of the chest. The perineal band presses on a few square inches of tender skin. A small air-pillow is used under the knee, and narrow wooden coaptation splints, fastened together at equal distances with tapes, are tacked on the outside of the splints. These splints are secured by strips of cloths tied around them, and their edges cut out when near a wound, so as not to press on the wound. By inflating the air-pillow a little more, and placing a rubber cloth under the thigh to drain the water into a tub, on the floor, and taking off all the strips of cloth except those at the ends of the splints, the wounds can be washed and dressed without disturbing the coaptation of the fragments.

He has used this jacket in 13 cases of fracture of the femur, one a case of gun-shot fracture, a photograph of which he exhibited. The man was very powerful. Twenty-five pounds at the end of the extension cord was first required; then, after the muscles ceased to contract spasmodically, fifteen pounds: and, after three weeks, ten pounds. The re-

sult was perfect. There was no shortening. The jacket antagonized the twenty-five pounds pleasantly. He uses a band of cloth or saddler's web around the hips, tied to the top of a board, secured to the side of the bed, next the broken limb, to keep the body and limbs aligned. The counter-extension bands, the extension cord, and the hip-band, being all secured, at an elevation, the patient rests lightly on the bed, and no bed-sores have been formed in any case. A section mattress is not required, as the patient can draw up his knee and support himself on his foot and elbows, so that a bed-pan can be placed under him, without disturbing the broken bone, or relaxing the extension, counter-extension, or coaptation.

This is a great advantage in army practice. With a piece of tent-cloth, a cord, a spool on a nail, or a round stick on two forks for a roller, a buckle and strap, a piece of moleskin or rubber adhesive plaster and an air-pillow, or a good substitute for it—all these appliances can be made.

He adopts Dr. Gordon Buck's extension, as the best in use. The effectiveness of this jacket depends on keeping the band on the lower edge of the jacket buckled tight enough below the ribs to keep it from slipping up over the chest. The patient may complain a little at first, and may ask to have it removed; but will call for its replacement in a few hours. It may be used in a tent with the patient on a bed-sack filled with straw, two stakes being driven in the ground to secure the counter-extension bands, which are fastened to the upper edge of the jacket, one in front and one behind each shoulder, a stake at the side of the bed to fasten the hip-band to, and two forks driven into the ground at the foot of the bed, with a round stick on the forks to act as a roller over which the extension cord can pass, at the end of which a bag of bullets may be tied.

The counter-extension bands should be fastened wide enough apart to furnish free motion of the head from side to side.

All these appliances, except the boards at the foot and side of the bed, can be carried in the overcoat pockets; and can be well made at a cost of one dollar and eighty cents, including an iron roller, a good buckle and strap, and a jacket made by a tailor.

The President, Dr. Hunter McGuire, of Richmond, Va., read a paper on the

Treatment of Chronic Cystitis in Women.

After pointing out the vesical disorders in women, due to

reflex troubles, such as piles, fissure, diseases and displacements of the uterus, foreign bodies, etc., he proceeded to the treatment of true chronic cystitis. First, he dilated the urethra and neck of the bladder, paralyzing, for the time, the sphincter; after this, he introduced the drainage-tube, and gave the organ complete rest.

In closing the discussion on his paper, Dr. McGuire, at the request of the Society, gave, in detail, the technique of his operation for the formation of an artificial urethra in enlarged prostate in the male.

After washing the bladder out, shaving and cleansing the parts about the pubes, the rectal bag is introduced and filled with 10 or 12 ounces of water. In an emergency, a pig's bladder might be substituted for this bag—one to hold 12 ounces would be the proper size. If he could get nothing else, he would distend the rectum with sponges. This distension of the rectum is important; it pushes the bladder up out of the pelvis into the abdomen; it keeps the peritoneum out of the way; it pushes the bladder close to the anterior abdominal wall, and makes the operation very simple and safe. The patient's bladder is then filled with warm water, containing a small quantity of carbolic acid. It is not necessary or desirable to distend the bladder; indeed, if the distension is carried too far the bladder might burst.

After all is ready, he cuts for an inch and a half, just above the symphysis pubis, through the skin, fascia and fat. He takes great care to keep in the middle line, and makes his cut down to the symphysis; with the handle of the knife he separates the recti muscles, then cuts through the fascia transversalis; again with the handle he goes through some fat and loose cellular tissue, between the fascia and the bladder. Carefully keep in the middle line, and disturb this structure as little as possible. The bladder is then in view; open it with the point of the knife, and, as the water flows out, introduce your finger and examine it; no stitches are necessary anywhere. When the rectal bag is removed, the bladder falls down into the pelvis, and when the parts have healed, and the opening into the bladder is reduced to about the size of the ordinary urethra, this new tube will bear the relation to the bladder that the spout of a coffee-pot does to the pot.

Then the man will be able to retain and expel his water. He can hold his water until it accumulates in the bladder, to a point above the level of the top of the new urethra—

for the recti muscles keep the canal closed when not in use, and prevent leaking, no matter what the position of his body. When he makes water, it comes out as from the natural urethra, the last of it in jets.

There is no need for drainage-tubes after the operation. Drainage is just as complete after this operation as it is after perineal section. It is difficult to believe this, but it will be seen after a trial, or after a careful study of the mechanism of micturition. It was after such a study that he devised the operation.

He had in his hospital, when he left, an interesting case of a woman, who, in consequence of sloughing after child-birth, had lost the whole of her urethra, and a part of the neck of her bladder. The plan usually practiced in such cases was to close the labia and turn the urine into the rectum. He intended to make, in this case, an artificial urethra above the pubes, as he had done in the male, and close up the lower end of the bladder entirely. He was certain, in this case, that he would succeed in making the woman hold and expel the urine at will.

Hot Water Treatment of Contracted Bladder.

Dr. I. S. Stone, of Lincoln, Va., read a paper giving his experience in treating cases of contracted bladder with hot water. The author claims originality for the method proposed. It was urged that surgeons should practice this method with due care and persistence before resorting to cystotomy or Emmet's operation. The patient is given a quarter grain of sulphate of morphia and 1-200 grain sulphate of atropia, hypodermically, and placed on a table. The operator proceeds as in ordinary irrigation, only allowing more fluid to collect in the bladder, and using a certain degree of force in distending the bladder with the fluid, (plain water or medicated with boric acid, temperature 110° to 125°). A ball syringe, two- or four-ounce, and soft rubber catheter, comprise the whole armamentarium requisite for treatment. As the patient becomes thoroughly under the influence of the anodyne, the water can be used at a temperature of 125° F. with excellent effect. During the 30 to 60 minutes necessary to continue the treatment, at each sitting the bladder may be filled and emptied six to twelve times. This may be repeated every five days with morphia. The author claims that the operation is devoid of danger if care is taken to measure the water carefully each time the bladder is filled, both before and after its injection. The

possibility of cure, it was claimed, depended upon the success attained in a given case in fully distending the viscus to its normal size.

It was claimed that nitrate of silver is unfit for use in the bladder except in connection with this treatment, as it is possible to produce still greater contraction by strong solutions. Iodoform was found to be of great value when allowed to remain in the bladder after each dilatation. Cocaine in strong solutions was without effect inside the bladder. No bad results were reported, and save slight hæmorrhage following rather vigorous distension, there was no cause for alarm in any case.

Certain Obscure and Minor Forms of Pelvic Cellulitis Simulating Malarial Fever

Was the title of a paper by Dr. Bedford Brown, Ex-President and Honorary Fellow of the Medical Society of Virginia, etc., of Alexandria, Va.

He said that during his long experience, numerous cases of pelvic cellulitis of a very obscure type, some of a grave, others of a milder character, also cases which he denominates the minor form, that present no indications to direct attention to the pelvis or pelvic organs, and which manifest no symptom of local lesion, have come under his observation. In all of these cases there was no pain or discomfort complained of, either in the pelvis or pelvic organs, as the bladder, uterus or rectum, or in the regions of the abdomen. Neither was their pain or tenderness over the abdominal regions, or above the brim of the pelvis on pressure. In these cases, the only conspicuous symptoms were increased frequency of the pulse rate and increased temperature.

The form of fever in all these cases was purely remittent in character. In the *grave forms*, the type of fever, after a time, often assumed that of an adynamic character, resembling typhoid or typho-malarial. In many, there were daily rigors, fevers and perspirations, nausea, vomiting, diarrhœa, and at other times, constipation. The temperature in the grave forms would rise to 104° or 105° at night, and fall to 100° to 101° in the morning. In certain cases, the evening exacerbations were attended with acute neuralgic pains in the head and limbs, but never in the pelvis or abdomen. Considering the presence and extent of local diseases in the pelvis, the total absence of suffering and complaint relative to the pelvic organs was very remarkable. These cases all followed labor or abortion within the month, and usually

after the patient rose from bed. Indeed, in general appearance, these cases were indentical with those of malarial remittent fever of a protracted character.

Until the true state of affairs was disclosed by vaginal examination, Dr. Brown has been deceived himself, supposing these cases to be of a malarial character. He has seen the same error committed in the practice of others. He now establishes it as a rule to explore the interior of the pelvis in all women who have fever or chill after labor, or abortion during the month, unless there are other palpable causes existing. In addition to the other symptoms, a certain proportion of the graver forms have a markedly jaundiced complexion, nausea, vomiting, dry tongue, delirium, low remitting type of fever, but never any complaint of either pain in the pelvis, or pain or tenderness in the abdomen. To the question, Have you any pain in these regions? The invariable answer was, No.

He can recall three cases presenting these symptoms in the practice of others to which he was called. In these cases there was not the first indication calling attention to the pelvis, or disease of the pelvic organs. In examining these cases carefully, there was no pain or complaint of pain in pelvis, or tenderness on firm pressure being exerted over the entire abdomen. Yet, in all, a vaginal and rectal examination disclosed more or less extensive areas of inflammation and plastic deposit in the pelvic cellular tissue, but no peritonitis. He does not doubt but that this affection often runs its entire course without ever being recognized as such, and is often confounded with malarial fever. He believes that the great majority of cases, of so-called puerperal malarial fever, are in reality obscure cases of cellulitis unrecognized. It will be observed, that in those cases presenting a genuine jaundiced complexion, the condition is not true jaundice such as accompanies malarial poisoning, as there is an entire absence of bile in the urine and conjunctiva, but, in reality, is due to blood poisoning or septicæmia.

In the true *minor forms* of cellulitis, the fever is always of a mild remittent form, never going above a temperature of 102° at the evening exacerbations, and falling to 99° or 98½° during the morning remission. They never make complaint of pain in the pelvis or abdomen, and to all appearance, present the ordinary symptoms of a mild malarial remittent fever. They usually continue for ten or fifteen days and then subside, and often spontaneously in that time.

Dr. Brown, previous to the introduction of antiseptic practice, has repeatedly seen these mild cases running a week or ten days after labor or abortion. The area of inflammation and lymph deposit, is usually very limited and circumscribed in those minor cases, and cannot always, without great patience and care in our examination, be detected. It may not be larger than the end of the thumb or a common walnut, and is situated either under the right or left broad ligament, at the utero-vaginal junction, or in the cul-de-sac, and is often so insensible to pressure as to escape notice when touched through the vaginal walls. These cases rarely tend to septicæmia, or to involve the peritoneum.

He believes that puerperal pelvic inflammations are essentially diseases of town and city life. In a practice of ten years in a country district, with a very considerable proportion of obstetrical practice, in which all classes were attended —from the wealthy, refined lady, to the filthy, careless plantation negro—Dr. Brown never saw but one case of puerperal fever which occurred from retention of placenta under the care of an ignorant midwife, and not a single case of pelvic cellulitis.

To subdue inordinate fever in these cases, and save constitutional wear and tear, quinine is very valuable. But for the purpose of subduing obstinate, protraced inflammation, causing absorption of those indurated, indolent lumps of lymphous deposit, and preventing suppuration, the combination of quinine and minute doses of the mild chloride of mercury, have been the most successful in his hands. Twenty grains of the quinine per diem, and one-sixteenth of a grain of calomel, every three hours, when not contra-indicated, have accomplished more for him in these cases than any other remedies. In certain obstinate cases where everything, as quinine, iodide of patash, counter irritation and vaginal douches had failed, and when the pelvic cellular tissue was filled with hard, firm, plastic exudations, the sixteenth of a grain of calomel, and an occasional hypodermic of morphia, to induce sleep, produced an effectual absorption of the plastic exudation and subdued the inflammation. In one case recently, when the mercury and iodide of potash disagreed, hydriodic acid acted favorably as an alterative.

In regard to the prophylaxis of cellulitis, whatever may be our theories relative to the nature of the causes of sepsis —whether the infectious poison be in the form of bacterial germs, or of the character of chemical or animal poison—he

believes that simple cleanliness of the genital tract is of primary importance. When this tract was kept clear of all putrefying lochial matter, and all abrasions or fissures kept clean, that of itself—regardless of the character of the disinfectant used—prevented infection and pelvic inflammation.

In city practice, cleanliness maintained by means of douches containing in solution borate and bicarbonate of soda, will prevent fermentation and putrefactive action in the vagina—in his opinion the theatre of infective germation and operation. If a rent or laceration, however small, exists in the genital tract of a puerperal woman in city life, there is always danger of the absorption of septic matter and infection. I have never had cause to regret scrupulous attention to cleanliness and disinfection in city practice; but I have had cause to regret their neglect. In country life, as a rule, septic causes do not exist, and, therefore, antiseptics to that extent are unnecessary. In country life, epidemics of puerperal fever are unheard of, and sporadic cases rare.

In country practice. many years ago, he has repeatedly seen among the negro and more destitute classes in the cases of puerperal women, the same bedding, clothes and clothing, saturated as they were with putrescent discharges, that had been retained from the beginning to the end of confinement and, an utter want of personal cleanliness, without the first ill effect. In city practice, he has seen the neglect to remove soiled clothes a single day, when there was a small laceration of perineum, produce the most intense pelvic cellulitis.

Dr. Joseph Taber Johnson, of Washington, D. C., presented a paper entitled,

Observations Based upon an Experience of 72 Miscellaneous Abdominal Sections,

Of this number, 29 were for the removal of ovarian tumors, varying in size from one to sixty-four pounds—26 recoveries and three deaths; 29 cases of removal of the uterine appendages, with 27 recoveries and 2 deaths. Seven supra-vaginal hysterectomies for large uterine fibroids with 3 recoveries and 4 deaths. One Cæsarean section—death on the 10th day. One cyst of the kidney weighing 74 pounds, died of exhaustion. One fatal case of extra-uterine pregnancy—operated on six weeks after rupture—general peritonitis, with pulse 130, temperature 103. One fatal case of

general abdominal cancer. Three exploratory incisions—all recovered. Total 72 laparotomies, with 59 recoveries and 13 deaths.

Of the 58 ovarian operations, the first three deaths were the 2nd, 3rd and 5th of his series. In the last 52 ovarian operations, there have been only two deaths; one of these was from tetanus occurring on the 15th day after operation, where everything indicated a perfect recovery—the other was an insane patient, who had been four years in an insane asylum, on account of nymphomania. She could not be entirely controlled. Her constant efforts to get out of bed, etc., set up inflammation about the abdominal sutures, causing an abscess, which burst internally and caused her death.

Dr. Johnson wished to emphasize the statement, that experience in operating was no where so valuable as in the abdominal cavity—that the "unexpected" was so often found, that many cases would be lost if the operator was not prepared for, and equal to the emergencies as they "unexpectedly arose.

The preparation of the patient was discussed, especially in regard to conditions of the bowels; also the time and place of the operation. The length of the incision and the time occupied by the surgeon; the shorter the incision and the shorter the time; the less ether consumed and the less shock following—Clover's Inhaler was preferred. Only the clean fingers of the operator should enter the abdominal cavity. Few and clean sponges—irrigation with hot distilled water being preferred for completing the "toilet of the peritoneum"—the removal of all the water being unnecessary if it is clean. Plenty of hot water and a drainage tube are preferred to long continued sponging. Secure pedicle with pure Chinese silk only large enough to tie firmly without breaking. While much of the general oozing from torn surfaces which were adherent to the tumor will be gradually arrested by sponge pressure, hot water and the drainage tube, it is unsafe to leave bleeding points in the omentum; they should be carefully sought out and tied.

Close the abdomen with many sutures in order to prevent ventral hernia. Some operators report 10 per cent. of their cases suffering later on with this sad accident, which leaves the patient in nearly as uncomfortable condition as before the removal of her tumor.

Dr. Johnson begged his hearers not to give their patients opium. He did not believe the sum of their pain was lessened

by it. He opened the bowels early, always by saline purgatives if peritonitis threatened; and while he was very watchful, he thought patients should be very much let alone after the dressings were applied. Do all that is necessary at the time of the operation, and do it well, and then let them alone, except to move their bowels early.

Medicine does little or no good in these cases; indeed, he thinks, taken altogether, it has done much more harm than good—even the ether vomiting is best and soonest cured by letting it alone. Moving the bowels will often arrest it when other means fail. No visitors. The patient should simply be watched for the first week—only one doctor and on nurse being in attendance. Early feeding of liquid food as soon as the stomach will retain it—animal broths. Milk does not prove the best for these patients; it makes caseous and lumpy stools, stops up the bowels and causes wind colic. If the stomach continues irritable, give by the rectum.

Puerperal Eclampsia

Was the title of a paper by Dr John Herbert Claiborne, of Petersburg, Va., Ex-President and Honorary Fellow of the Medical Society of Virginia.

Eclampsia gravidarum is a disease *sui generis*, consisting of a peculiar variety of convulsions occurring only in the parturient female. A persistent headache in a pregnant woman, especially during the latter months of her condition, or at the inception of labor, tinnitus aurium, amblyopia, flashes of light alternating with partial blindness, numbness of the hands, imperfect memory—especially if these symptoms be followed or accompanied with œdema of the face, scanty urine or albuminuria—indicate, as clearly as certain signs in the heavens betoken the tempest, the coming on of puerperal convulsions. It is true, the first convulsion simulates an attack of epilepsy very strikingly, except that he has never heard in the puerperal eclamptic, the peculiar cry of the epileptic; but the eclamptic convulsion itself presents to the eye of the observer certain charaeteristics not seen in the case of the ordinary epileptic. When the eclampsia is immediately announced, the spasm is, for twenty seconds or more, of a tonic or tetanic character, evinced by the fixed eye, the contracted pupil, the drawing of the orbicularis oris causing the simulation of a smile, the tension of the cervical muscles bringing backward the head, the swelling of the jugulars, the suspension of respiration. After this, there is a sudden and complete relaxation, a long stertorous

or hissing inspiration ; and clonic convulsions of the whole muscular system ensue—especially violent in the face and upper extremities. This may continue for a minute or two —rarely longer at the first attack—when the convulsive movements suddenly cease, and the patient falls into a deep sleep, which may last an hour or a day—according to the intensity of the cause, the susceptibility of the patient, or the efficiency of the treatment—after which the same phenomena may or may not be repeated. If convulsions occur during pregnancy, and are unprovoked by uterine and recurrent pain, many days may elapse before another attack, and indeed, there may be no repetition even when labor supervenes. Usually, however, there are from one to twenty convulsions during twenty-four hours, unless labor is sooner ended. Depaul reports the recurrence of 160 convulsions a day ; that is, about one every eight minutes. Dr. Claiborne saw one case in which they were almost continuous for twenty-four hours; that is, after the first six or eight regular convulsions, the clonic spasms were continuous—thus more nearly resembling a case of exaggerated chorea with unconsciousness ; and so powerful were they that it was impossible to hold the patient at all except at the risk of breaking her neck. Yet the baby was eventually born without hurt, and the mother made a good recovery, except that she was blind for several weeks subsequently. There was no sort of renal deficiency in this case but rather an excess in the quantity of urine, although it was loaded with albumen and casts.

The prognosis is always very grave, but the mortality has been exaggerated. Lusk formulates a table of mortality of one in eight cases.

Most writers rate the frequency of the disease at about 1 in 500 labors ; but in Dr. Claiborne's experience the frequency has been nearly 1 in 300.

The pathology is uncertain. Generally there is some renal deficiency, often associated with albuminuria. Dr. Lever called attention to this fact in 1842 By 1850, or a year or two later, professional opinion was that eclampsia was little else than uræmic intoxication. Subsequently, however, Seyfert reported a number of carefully observed cases disproving this theory. Then followed the theory of Frerich—that there was a ferment in the blood, converting urea into a carbonate of ammonia. On the disproval of this, the Traube-Rosenstein theory of hydræmia in all pregnant women had its run, until disputed by Loblein, who

failed to find in 19 *post-mortems* but one case of œdema or anæmia of the brain. The short lived theory of anæmia of the brain was destroyed nearly as soon as announced by clinical evidences to the contrary; for there are some questions which common sense can answer as correctly as science. Another theory, which had its day was that the pressure of the gravid uterus upon the kidneys, obstructing the renal circulation, cause deficiency in urinary secretion and consequent accumulation of urea in the blood. If there were truth in this theory, why do not ovarian and other abdominal tumors produce similar results? The latest theory is that both the eclampsia and the albuminuria are due to the circulation in the blood of a certain insidious and toxic element, not yet determined—perhaps the microbe of eclampsia; but such a thing has not yet been captured. Dr. Claiborne recognizes some relationship in the majority of cases between albuminuria and the condition of pregnancy, and thinks the most plausible explanation lies in the fact demonstrated by Frankenheuser—the direct connection between the ganglia of the kidney and the nerve filaments of the uterus by the means of the sympathetic system. The modern physician seems in danger of ignoring eccentric irritation as *casus mali*. In eclampsia infantum, for instance, how seldom is the seat of trouble in the nervous centres; but how often in a tooth in process of eruption, in the stomach containing undigestible material, or in a colon overloaded by constipation, etc.? We seem to forget that puerperal eclampsia occurs only in the parturient woman, most generally in the primapara, or in cases of twins, or of a foot or hand presentation, etc.—giving rise to extraordinary uterine irritation; in other words, creating unwonted eccentric irritation. Besides, the parturient woman, especially the primipara, is often in a condition of mental, moral and physical excitability: while the womb, fretted and oppressed with an unused and wearying burden, is straining to throw it off, and telegraphing its troubles to the brain, already itself, perhaps, sharing the general alarm, if not poisoned with uræmic blood—what can be the result to be apprehended but an explosion of neurotic force—*puerperal convulsions?*

As to *preventive treatment*, during the latter stages of pregnancy, if any symptom of impending evil is found, give plain, digestible fare, forbid mental or physical excitement, regulate the bowels with blue pill, followed by some saline laxative, direct the daily use of Vichy or Lithia water or

even acetate of potash with infusion of digitalis especially if the kidneys are torpid. For headache or wandering pains in the back or extremities, give antipyrin every three or four hours until relieved; or if the kidneys are active, use hypodermically morphia (gr. $\frac{1}{6}$th) and atropia (gr. $\frac{1}{180}$th), and repeat as often as may be necessary.

As to *treatment of the attack*, bleed at once, and give by enema thirty grains each of chloral and bromide of potash, and then wait on natural labor. He has on several occasions regretted inducing premature labor; and on more than one occasion, he has had cause to fear that the patient lost her life from shock incident to rapid dilatation of the os uteri and delivery by turning. "So confident am I of this, that I will never again be responsible for the practice of hastily and rudely entering the womb and removing its contents." But if labor has fully set in, and the os is dilated or *easily* dilatable, if a venesection has been made, and the patient under the relaxing effect of chloroform and of chloral, then turning or forceps delivery afford an easy solution to one indication—the removal of the eccentric and provoking cause.

As to bleeding, he found it the practice when he began, over 35 years ago. It was good then; it is good now. Indeed it is "the sheet anchor of safety." He reported a case in which within forty-eight hours he bled three or four times—taking away in all 116 ounces of blood and saved his patient who would surely have died without such venesections. This case occurred 37 years ago. Were a similar case to occur now, besides the bleeding, he would give chloral by enema and chloroform by inhalation.

Dr. Cornelius Kollock, of Cheraw, S. C., read a paper on

Laparotomy for Intestinal Obstruction.

Intestinal obstruction, once regarded as one of the great bug-bears of the profession, may now be said to be shorn of much of its terrors, and to rank with other hitherto insurmountable difficulties that are every day being relieved by laparotomy. The danger of opening the peritoneal cavity, and thereby producing fatal peritonitis, has been a cherished dogma taught in the medical schools of all countries. It is not a little singular that medical men should so long have been wedded to this belief, whose experience should teach them that the peritoneum is as little liable, if not less liable, to take on inflammatory action as any other tissue of the body, and that when it does become inflamed, it is al-

ways symptomatic, and depends on some pre-existing cause. Chomel, than whom there can be no more reliable authority in pathology, said, more than forty years ago, that he had never seen a case of idiopathic peritonitis. While few, in modern times, have been so bold as to dare gainsay the opinion of this learned pathologist, yet many have been slow to adopt the idea, and still more slow to act upon it. Even after the intrepid McDowell came to the front, and, impelled by his robust moral courage, opened the peritoneal cavity with the view of removing cysts, there were still those in the profession, both in this country and in Europe, who were more disposed to condemn the operation than to extol McDowell for his brilliant surgical exploit. While this proved that the peritoneum can be divided with impunity, there was still many a doubting Thomas. Some of them were of strength and prominence in the profession, who could not divest their minds of the old idea that a wound of the peritoneum was necessarily fatal. McDowell's success gave quite an impetus to abdominal surgery, and many who had previously stood aloof came forward as advocates of laparotomy. But it had to move slowly and cautiously. Both in America and Europe it was condemned. The celebrated Dieffenbach said, as late as 1848, that "any man who would open the peritoneal cavity was no better than a murderer, and should be placed in the criminal dock and tried for his life." But in time a change came over the spirit of the dream of even the Nestor of Continental surgery, and Dieffenbach's views as regards abdominal surgery were so modified that a short time before his death he expressed the opinion that ovariotomy might be justified where there was good assurance that the cyst had not formed adhesions with the adjacent tissues. If he had lived longer, it is probable that he would have been a successful ovariotomist, and a strenuous advocate of laparotomy.

While the history of ovariotomy for the past twenty or thirty years has established the fact that the peritoneal cavity can be entered with safety, and admitting that it can be divided without serious consequences for the removal of a neoplasm, there still exists with many a hesitancy and dread in resorting to it for the relief of intestinal obstruction. But the cautious and patient researches, and the brilliant results of operations of Leichenstern, Bulteau, Rafinesque and Peyrot on the Continent, and those of H. O. Thomas and Frederic Teves, of England, and R. H. Fitz, of

our country, have, in the minds of all thinking men, established laparotomy for intestinal obstruction as an authorized and legitimate surgical procedure. The time, we trust, is near at hand when no intelligent surgeon will hesitate to open the peritoneal cavity for the relief of intestinal obstruction when assured of the mechanical nature of the obstruction and of the strength of the patient to stand an operation of as much severity.

Report of some cases that came into Dr. K's. hands recently will illustrate not only the necessity of a resort to laparotomy in all such cases, but the importance of the operation being done as early as practicable. To dally with the case day after day till the patient's strength is exhausted and a high grade of peritonitis has set in, is to throw away precious time, and to rob the patient of nearly all chanees of recovery.

Case I.—A stout, healthy lad, of 18 years of age, was seized, on the night of the 12th of August, 1888, with a violent pain near the umbilicus. A physician was called, and various remedies were used, such as sinapisms to the abdomen, enemas, and large doses of opium, but with no relief. Dr. K. first saw the man at 6 P. M. on 13th of August, twenty hours after the attack. He was almost in a state of collapse, bathed in a cold, clammy perspiration, and the pulse quick and feeble. Stercoraceous vomiting had occurred twice. The enemata brought away nothing except what lay below the point of strangulation. The abdomen was greatly distended, and tympanitic. Feeling assured that there was internal strangulation of the bowel, Dr. K. determined to resort to laparotomy. An incision of three inches was made in the linea alba, below the umbilicus. As soon as the peritoneum was opened, a coil of intestine, heavily congested, of a purplish color, made its appearance. Just at this point the strangulation was found. A diverticulum about three inches in length, and attached at its extremity by a shred of fibrous tissue to the mesentery where it joins the gut, formed with the ileum, from which it sprang, a loop, through which the coil of intestine had slipped and became strangulated. The portion of intestine confined was released by simply dividing the fibrous band and setting free the end of the diverticulum. This afforded immediate relief from pain, and in a short time there were one or more movements of the bowels, and large quantities of offensive gas and fecal matter were discharged. This patient made a quick recovery, and has enjoyed uninter-

rupted health since the operation. A delay of a few hours would have proved fatal in this case. The bowels above the strangulation were highly congested, and of a dark purple color. The patient's strength was failing rapidly from the violence of pain, excessive vomiting, and the want of nourishment.

Case II.—A young man, aged 25; general health had always been good till some time during the month of November, when he had violent attacks of what was called bilious colic—by the way, a very unmeaning term, which should be expunged from medical nomenclature. The pain was in the lower portion of the region of the liver and around the umbilicus. Several times during the latter part of November, and during the month of December, a number of gall-stones were passed, varying in size from that of the head of a pin to that of a pea. This was, of course, accompanied by violent pain, such as was experienced in previous attacks. On the night of the 2d of January, 1889, there was another attack, more violent and distressing than any of a previous date. The physician called, supposed it was a similar attack to those of former occasions, and resorted to the treatment that had previously afforded relief. The pain, though to some extent paroxysmal, was very intense all the time, notwithstanding that morphia was administered in half-grain doses every hour or two for more than twelve consecutive hours. Immense doses of purgative material were administered, in the shape of castor oil, Epsom salts, olive oil, rhubarb and calomel, with no benefit, but doubtless with more or less injury. In the afternoon of January 4th, about forty hours after the attack, stercoraceous vomiting came on, and the patient got rid, through the mouth, of large quantities of fæcal matter, fluid, and offensive gas. This afforded more relief than all the anodyne, and the patient was able to take some milk and a little chicken broth, with apparent relish. But in the course of a few hours vomiting returned, and the milk and chicken broth were thrown up in a crude and undigested state, along with more stercoraceous matter. This condition of affairs continued until 5 A. M. of 7th of January, 1889, nearly five days after the commencement of the attack. It was then that Dr Kollock first saw the case. There was no doubt in his mind, nor was there any doubt in the mind of the attending physician, as to the nature of the trouble. The whole abdominal region was greatly distended, from the ensiform cartilage to the pubis,

and there was much tenderness. Pulse 140 and weak, temperature 104°. In this emergency, what was to be done? To leave the patient as he was, was simply to turn him over to death. Laparotomy, severe and dangerous under far more favorable circumstances, was the only procedure that offered any hope. This could not promise more than one chance in fifty, in the condition the patient was then in. The consent of the family was readily obtained, and the patient was anxious for the operation. At 6 A. M. January 7th, 1889, Dr. K. opened the peritoneal cavity by an incision of three inches in the linea alba, about one inch below the umbilicus, and search was made for the cause of the obstruction. The colon had become twisted on itself, and a knuckle of bowel had slipped through a slit or aperture in the omentum; and, in addition, a roll or band of omentum was pressing firmly upon it. The band of omentum was divided, the bowel drawn out and untwisted. This removed the cause of obstruction, and there was soon an audible explosion of offensive gas, followed in a short time by a discharge of fæcal matter.

This operation was in itself a success, and the patient may be said "to have died cured," for the obstruction was removed, and all pain had entirely disappeared. Death took place thirty hours after the operation, from exhaustion.

What would have been the chances of this unfortunate young man, had the operation been performed earlier, is a question difficult of solution. Being young, with good habits and good health, it is my opinion that if the operation had been done three days earlier, about the time of the first appearance of stercoraceous vomit, he would have stood as good a chance for recovery as any who undergo the operation of laparotomy.

Case III.—A strong, vigorous man, aged 44 years, with good general health, with the exception of occasional attacks of indigestion consequent upon torpor of the liver, was seized, on the 11th of October, 1889, with violent pains in the bowels; saw case on the 13th October, about 43 hours after the attack; abdomen greatly distended; tender and tympanitic; stercoraceous vomiting had occurred at intervals of two hours.

Abdominal cavity was at once opened by an incision of four inches a little below the umbilicus. The walls being very thick from the presence of a superabundance of adipose tissue, somewhat embarrassed the operation, and caused

a longer incision than would have otherwise been necessary. As soon as peritoneum was divided, a mass of intestines, much distended and highly congested, protruded through the opening. The cause of obstruction was soon discovered to be an intussusception in the ileo-cæcal region; had evidently not existed long, as there were no adhesions; was easily reduced by simply drawing out the invaginated portion. After the cause of the obstruction was removed, there was no effort at defecation, owing to partial paralysis of the muscular coat of bowels consequent upon long-continued over-distension. By the use of aspirator, the fluid and gas were removed, and by gentle pressure of the hand along the surface of the bowels, the fecal mass was started, which, by the aid of a stimulating enema, soon found its exit through the rectum.

Operation was entirely successful, and a good recovery followed. It is now three weeks since the attack, and the patient is in all respects very comfortable.

The Surgical Treatment of Empyema, with Cases,

Was the subject of a paper by Dr. J. A. Goggans, of Alexander City, Ala. He said that pleurisy was of such common occurrence, that it was absolutely necessary for every practitioner of medicine to be able to perform the operations of thoracentesis and thoracotomy. The diagnosis of empyema having been made, there was only one alternative, viz: to evacuate the pus by some means. The exceptions to this rule were cases of empyema complicating phthisis.

Aspirations should always be given a fair trial before resorting to incisions, that the sitting posture should be observed by the patient unless the circulation was weak; then morphia hypodermically should be given to adults, and the camphorated tincture of opium to children, as well as stimulants before the operation, and the patient allowed to observe the recumbent posture. The point of the needle should always be directed a little downwards in making the puncture, thereby avoiding puncturing the lower border of the superior rib or the intercostal artery. The object should be to evacuate all the fluid possible without causing pain or dyspnœa; and before withdrawing the needle, the suction of the instrument should be cut off to avoid the dangers of drawing pus into the walls of the chest. He had followed these rules closely in making 138 punctures, both for serofibrinous and purulent pleurisies, and never had had a single accident.

Most authors advise thoracotomy after two or three unsuccessful aspirations. Dr. Bowditch states that there is no immediate call for thoracotomy, unless the pus becomes impure, or the physical condition of the patient demands it. Dr. Goggans stated that recoveries had taken place after from one to seventy-three aspirations; and this being the case, he was inclined to adopt the plan of treatment as recommended by Bowditch as being the best. He said, however, that when the pus became fetid and the pleural cavity refilled after repeated tappings, incisions should be made. There was one other condition in which he would urge thoracotomy, viz: where one or more aspirations had been performed, and there were symptoms of perforations through the lung. He had performed the operation once under these circumstances, and the expectoration ceased. The surgeon who failed to operate under those circumstances, would bring upon himself the responsibility of a large mortality.

He did not believe that the pleural cavity should be opened by plunging the knife in, after the manner of opening a single abscess; but that the tissues should be carefully divided down to the pleura, then a grooved director thrust through, and the pleura divided on the director. He said that the most dependent thin point of the chest wall should be selected for making the puncture, unless there was pointing, and then the incision should be made there, and that an anæsthetic of some kind must be given.

He had used for drainage tubes pieces of male catheter, silver tubes with the protecting collar, pieces of soft rubber tubing, and on one occasion, a large sized Gruber's ear speculum. The soft rubber tubing, he said, was far preferable to anything he had ever used. The dressing should consist of several layers of antiseptic gauze, and should be renewed two or three times every twenty-four hours. He said that most authors advised medicated washes after thoracotomy, but Sir Joseph Lister and Prof. Loomis, were much opposed to it. He had never used anything for this purpose but warm water that had been boiled, and believed that it was a good wash for the pleural cavity. He then gave the histories of three cases of empyema occurring in the same family at the same time.

Case I.—Was a child of 7 years of age. Had influenza, complicated by pneumonia, pleurisy and empyema. Emaciation in this case was extreme. In all, eleven aspirations were performed, and he made a complete recovery.

CASE II.—Male, 17 years of age. Had influenza, complicated by pneumonia, abscess of the lung, pleurisy, and empyema. He discharged pus by expectoration for about thirty days, when he ceased to cough and developed symptoms of a circumscribed empyema. Aspiration was performed, and six ounces of pus evacuated. About one hour later, the expectoration of pus was set up again, and eight to ten ounces were expectorated within twelve hours, when it suddenly ceased, followed by great retraction of the chest walls, and he made a complete recovery.

CASE III.—Male, 20 years of age, brother of the other two cases, had influenza, pneumonia, pleurisy and empyema. Forty-five aspirations were performed before the pus became fetid. He rejected thoracotomy. The fetor disappeared after the forty-ninth aspiration. In all, seventy-three aspirations were performed, and at least 500 ounces of pus were removed. Then thoracotomy was performed, the incision being made in front between the fourth and fifth ribs. He stated that the patient was now wearing a soft, rubber tube, and there was very little pus being discharged.

The next Annual Session will convene in Atlanta, Ga., Tuesday, November 11th, 1890. The officers for the current erm are: *President*, Dr. George J. Engelmann, of St. Louis, Mo.; *Vice-Presidents*, Drs. B. E. Hadra, of Galveston, Texas, and Duncan Eve, of Nashville, Tenn.; *Secretary*, Dr. W. E. B. Davis, of Birmingham, Ala.; *Treasurer*, Dr. Hardin P. Cochrane, of Birmingham, Ala.

Book Notices.

Manual of Obstetrics. By A. F. A. KING, A. M., M. D., Professor of Obstetrics and Diseases of Women and Children in Medical Department of Columbian University, Washington, D. C., Etc. With 141 Illustrations. Fourth Edition. Philadelphia: Lea Bros. & Co. 1889. Cloth. 12mo. Pp. 431. Price, $2.50. (From Publishers)

Dr. King is an able writer and an observant practitioner. His present work is a model of conciseness of language and of fulness of description. It is alike a synoptical work for the professor, a text-book for the student, and a faithful guide for the practitioner. He lays special stress upon the accuracy of the fundamental facts connected with the study of obstetrics, and builds upon them a line of practice approved by reason and sustained by experiences of the best

of obstetricians. Each edition has been an improvement on the former. This fourth edition contains two added chapters, on "Intercurrent Diseases of Pregnancy," and on "Resuscitation of Stillborn Children."

The Story of the Bacteria and Their Relations to Health and Disease. By T. MITCHELL PRUDDEN, M. D., New York and London: G. P. Putnam's Sons. 1889. Cloth. 12mo. Pp. 143. Price, 75 cents. (For sale by West, Johnston & Co., Richmond.)

This is one of the most readable of the treatises on bacilli, bacteria, etc., that we know of. It deals with facts well-established by scientific advances, but tells the story in such a plain and interesting manner as to leave the correct information indellibly impressed upon memory. It is as good for doctors and medical students as for "laymen," for which latter class of readers it claims to have been specially prepared. The title explains the scope of the book.

Clinical Atlas of Venereal and Skin Diseases, Including Diagnosis, Prognosis and Treatment. By ROBERT W. TAYLOR, A. M., M. D., Surgeon to Department of Venereal and Skin Diseases of New York Hospital, etc. *Illustrated with 192 Figures, many of them Life Size on 58 Beautifully Colored Plates. Also many Large and Carefully Executed Engravings through the Text.* PARTS VII AND VIII—DISEASES OF THE SKIN. Philadelphia: Lea Brothers & Co. 1889. Page 18x14 inches. Paper. Part VII. Pp. 42. Plates; Part VIII. Pp. 63. Plates. Title pages, Contents, Preface, Index, etc. Price in Eighth Parts, $20. (From Publishers).

It would be hard to use words which would perspicuously enough convey to the reader the great value of this *Clinical Atlas.* Because the title page tells as well as a lengthy description would do, we copy it entire so that the reader may get an idea of the scope of the work—just now completed with the issue of Part VIII. This *Atlas* is more complete even than an ordinary course of clinical lectures; for in no one college or hospital course is it at all probable that all of the diseases herein represented would be seen. It is also more serviceable to the majority of students than attendance upon clinical lectures; for most of the students who sit on remote seats in the lecture hall cannot see the subject as well as the office student can examine these true-to-life chromo lithographs. Comparing the text to the lecturer, it is more satisfactory in exactness and fullness than he would be apt to be in lecturing over a single case. Indeed this *Atlas* is invaluable to the general practitioner; for it enables

the eye of the physician to make diagnosis of a given case of skin manifestation by comparing the picture of the case with the case represented in the *Atlas*, where will be found also text of diagnosis, pathology and full sections on treatment. Messrs. Lea Bros. & Co. will bind the 8 Parts, if returned to them, in half Russia, cloth sides, marbled edges, for $7 ; or in half Turkey Morocco, cloth sides, gilt top, for $8.

Respiratory Functions of the Nose, and their Relation to Certain Pathological Conditions. By GREVILLE MACDONALD, M. D., Lond., Physician to Throat Hospital, Golden Square, W. Boston and New York : Houghton, Mifflin & Co. 1889. Cloth. 8vo. Pp. 72. Price $1 25. (For sale by West, Johnston & Co., Richmond).

As a specimen of handsome publication, this volume would take first rank. The author's part is mostly original investigation and deductive reasoning. His first experiments prove that the *nose alone* is competent to raise the temperature of inspired air almost to that of the blood, and charges it with moisture. On contact with colder air with the nasal mucous membrane, there is an immediate increase of capillary blood supply, with accelerated oxidation and elimination of carbonic acid—thus proving that, to a certain extent, the nose performs precisely the same function as the lungs themselves. His deductions as to the functions of the inferior turbinated (erectile bodies) is that of increasing the area of mucous membrane over which air passes, when either more heat or more moisture is demanded. The rest of the book is devoted to a study of the relation of the physiology of the nose to certain pathological conditions.

The Cerebral Palsies of Children. By WILLIAM OSLER, M. D., Professor of Clinical Medicine, University of Pennsylvania, etc. Philadelphia : P. Blakiston & Son & Co. 1889. Cloth. 8vo. Pp. 103. (From Publishers).

The material of this book formed the basis of a series of lectures delivered at the Infirmary for Nervous Diseases (and published in *Medical Times* from July 14, to August 11, 1888.) The five chapters are devoted to infantile and bilateral spastic hemiplegia and to spastic paraplegia. The work is mostly composed of the deductions from clinical study of the record of nearly 100 cases, as they occurred under the author's observation. It is unfortunate for the reader that an index is not given—only the "table of

contents." Students who are busy practitioners or busy authors, have not the time to be plowing through pages of contents to find an item, while an index would have afforded in a moment the desired reference.

Inebriety—Its Etiology, Pathology, Treatment, and Jurisprudence. By NORMAN KERR, M. D., F. L. S., President of Society for Study of Inebriety, etc. Second Edition. London: H. K. Lewis. 1889. Cloth. 12mo. Pp. 471. (From Publisher.)

We are sorry we do not know the price of this book, for we would be glad to tell our subscribers exactly the amount of International postal money order to send to purchase it. It is the most sensible, practical and serviceable work on the subject we have ever seen. It instructs the doctor how to cure the inebriate. It views inebriety as a disease, and a life-long study of it by the author as a doctor enables him to lay down a line of therapeutics which seems altogether reasonable in all the claims made for it of being generally effective. To those in charge of inebriate hospitals—whether alcoholics, opium, etc.—this book is as invaluable as a formulary to an apothecary. It contains so much of "detail information" and advice, that we will feel better with it as our guide-book of practice than we have done before. We regret not having space to give a detailed description of its scope and of its pathological facts and therapeutic directions.

A Reference Hand-Book of the Medical Sciences. Embracing the Entire Range of Scientific and Practical Medicine and Allied Science. By Various Writers. Illustrated by chromolithographs and fine wood engravings. Edited by ALFRED H. BUCK, M. D. Volume VIII. Containing an Appendix (523 pp.) and a General Index (197 3-column pp.). William Wood & Company, New York. Price, Cloth, $6 per volume; Leather, raised bands, $7. (From Publishers.)

This Volume VIII completes the Series. The Appendix, referred to in the title above, takes up such subjects as have been omitted in the original alphabetical arrangement, and here and there gives additional information regarding subjects already treated in the earlier volumes. We regard this *Reference Hand-Book* as indispensable in the library of any doctor who wishes to have at hand something more than an encyclopædia on subjects pertaining to medicine. *Many* of the articles are in themselves exhaustive treatises; and from time to time, in notices of the preceding volumes, we have

called attention to this fact. Even in the present volume, about 150 pages are devoted to the brain—its anatomy, physiology, diseases, etc. An almost perfect Index renders reference to the subjects easy. In short, we feel the need of just this *Reference Hand-Book*, as we do of the unabridged dictionary. The Editor and the Publishers will ever be held in thankful appreciation because of the excellence of their respective parts in issuing these volumes.

The American Armamentarium Chirurgicum. George Tieman & Co., New York, N. Y. Royal 8vo. Pp. 846.

We have to return thanks to Messrs. Tieman & Co. for this magnificently-issued descriptive Catalogue of Instruments of their manufacture, etc. The work makes a new departure. All the instruments are illustrated by electrotypes, while the text describes the modus operandi of using them, as detailed in books and journals by the inventors. We do not know what price has been fixed upon by the well-known instrument-makers for the sale of this very serviceable book by those who may make application to them for a copy.

International Medical Annual and Practitioner's Index. A Work of Reference for Medical Practitioners. Edited by TWENTY-SIX EMINENT ENGLISH AND AMERICAN AUTHORS. Seventh year. New York: E. B. Treat & Co. 1889. 8vo. Pp. 544. Price, Cloth, $2.75. (From Publishers.)

We have only to repeat the favorable opinion of this Annual that we expressed in our May number, 1889, page 160.

Treatise on the Science and Practice of Midwifery. By W. S PLAYFAIR, M. D., LL. D., F. R. C. P., etc. Fifth American from Seventh English Edition. With Notes and Additions by ROBERT P. HARRIS, M. D. With five Plates and 207 Illustrations. Philadelphia: Lea Brothers & Co. 1889. Leather. 8vo. Pp. 671. (From Publishers.)

This is an excellent text-book, and is "well up to the times" with reference to most of the surgery of obstetrics. But had we the space we could not too severely criticize the American Editor, within the range of legitimate criticism, for making the statement that—"In the United States the *dangers attending the use of chloroform in obstetric practice* have, in large measure, banished it from the lying-in chamber."

We cannot understand such an assertion in view of the fact that throughout our Southern acquaintance (where just as many children are being born relatively to marriages as anywhere on this Continent) it would be regarded as a very great piece of negligence on the part of the obstetrician were he not to have *chloroform* provided in sufficient abundance to carry the mother through the pangs of labor. And yet, where are the deaths from chloroform in the South? A death from chloroform in labor in the South would create a great sensation. And yet, we would advise everybody not to abuse this invaluable agent even in labor cases.

Manual of Instruction for Giving Swedish Movement and Massage Treatment. By Prof. HARTVIG NISSEN, Director of the Swedish Health Institute, Washington, D. C., etc. With 23 Original Wood Engravings. Philadelphia and London: F. A. Davis, Publisher. 1889. Cloth. 12mo. Pp. 128. Price, $1. (From Publisher.)

Every doctor and every nurse, where the "movement cure" treatment is at all recommended, should get this book, for it is exactly what it claims to be—a manual of detailed instruction as to the diseases and conditions for which such therapeutics is useful, and the manner of applying it in special cases. In March, 1888, Prof. Nissen responded to an invitation to deliver an address on the subject of Swedish Movement and Massage before the Clinical Society of Maryland; and since then he has so frequently been asked by doctors to write a manual of instructions as to what to do and how to proceed, that he has been persuaded to pubish this, his first book.

Text-Book of Animal Physiology. With Introductory Chapters on General Biology, and a Full Treatment of Reproduction, for Students of Human and Comparative (Veterinary) Medicine, and of General Biology. By WESLEY MILLS, M. A., M. D., L. R. C. P., Professor of Physiology in McGill University and the Veterinary College of Montreal. With over 500 Illustrations. New York: D. Appleton & Co. 1889. Cloth. 8vo. Pp. 700. Price, $5. (For sale by West, Johnston & Co, Richmond.)

The progress of general education among the people makes its demands more and more for technical scientific education. The "scrub of a country horse doctor" has to give way to the veterinary surgeon who has fitted himself by special study for the discharge of scientific professional work; and the "natural born doctor," among the farmers, is becoming an individual of a past generation. While

much of Dr. Mills' work is comparative in its plan of study of the essentials of physiology, he is very particular to note wherein the difference exists in the functions of the same organs in different animals He keeps ever before the student the essential principles of biology, and the absolute interdependence of each organ and function upon others. His plan of summarizing the lessons of each chapter is an excellent help to the student to keep the lessons of the text impressed upon him. The Appendix on Animal Chemistry adds greatly to the value of the book as one useful in every doctor's library for frequent reference. A well-prepared Index is appended. We predict that it will not be long before Mills' *Animal Physiology* will be regarded as an essential in the library of every educated physician and veterinary surgeon.

Saunders' Question Compends. *No. 6.—Essentials of Pathology and Morbid Anatomy.* By C. E. ARMAND SEMPLE. B. A., M. B., M. R. C. P., London, Physician to Bloomsbury Dispensary, etc. With 46 Illustrations. 12mo Pp. 160. *No. 7.—Essentials of Materia Medica, Therapeutics, and Prescription Writing, Prepared Especially for Students of Medicine.* By HENRY MORRIS, M. D., Late Demonstrator Jefferson Medical College, etc. 12mo. Pp. 160. Philadelphia: W. B. Saunders. 1889. Price of each, $1. (From Publisher)

Each of these *Compends* contains over 1,000 questions and answers on the most essential points. They are almost necessary in preparing for examinations, reference books, etc. Members of State Boards of Examiners should have the books from which to select authoritative questions, and those to undergo examination should have them so as to thoroughly review their studies. For the practitioner, they are useful for refreshing of memory of things that ought not to be forgotten. We most unreservedly commend the numbers we have had the opportunity of examining, and safely predict that the Compends yet to appear will equal in value those already published.

Disordered Digestion and Dyspepsia. By FRANK WOODBURY, A. M., M. D. 1889. George S. Davis, Detroit, Mich. 12mo. Pp. 82. Paper. Price, 25 cents. (From Publisher.)

This is No. 10, Series III, of the "Physician's Leisure Library," and furnishes a great deal more of information and advice than can elsewhere be supplied for 25 cents. We are glad to see Dr. Woodbury speaks so highly of some of the preparations introduced or improved by Messrs. Parke, Davis & Co.

Syphilis of the Nervous System. By H. C. WOOD, M. D., LL. D. 1889. Geo. S. Davis, Detroit, Mich. 12mo. Pp. 135. Paper, 25 cents; Cloth, 50 cents. (From Publisher.)

This monographic book is the first of Series IV of the "Physician's Leisure Library," and comes out in a new and tasty style. It would pay to become an annual subscriber, at $2.50, for the twelve monthly issues. Dr. Wood, in the present publication, sums up his experience and observation of about 2,000 cases. While there is nothing exactly new in his book, still he systematizes the result of his studies so well as to make this essay one of much practical value.

Chemistry: General, Medical, and Pharmaceutical, including the Chemistry of the U. S. Pharmacopœia. By JOHN ATTFIELD, F. R. S., Professor of Practical Chemistry in Pharmaceutical Society of Great Britain. Twelfth Edition. Philadelphia: Lea Brothers & Co. 1889. Demi 8vo. Pp. 770. Sheep, $3.25; Cloth, $2.75.

Attfield's Chemistry is unquestionably the best of textbooks on Chemistry for the use of students and practitioners of medicine. While, of course, all the general truths of Chemical Science are the same in all departments of study, Attfield's Chemistry selects its illustrations from the fields of pharmacy, physiology, pathology, toxicology, etc. This twelfth edition is an improvement on former editions, in that it contains more facts which have been developed in very recent time.

Wood's Medical and Surgical Monographs. Nos. 1 and 2 (October and November, 1889). Vol. IV. Paper. 8vo. Pp. 322 and 275. William Wood & Company, Publishers, New York. Price, $10 a year; single copy, $1. (From Publishers.)

These monthly monographs have become so standard in their worth that it is hardly necessary to do more than to announce their contents: No. 1 contains Dr. John Brown's 13-page paper on *The Influence of the Male Element upon the Female Organism;* Mr. A. Symons Eccles' paper on *The Internal and External Temperature of the Human Body as Modified by Muscle-Kneading*, and Mr. Thos. Bryant's Monograph of 285 pages (with 13 engravings and 4 chromo-lithographs) on *Diseases of the Breast.* No. 2 contains a 15-page paper by Mr. C. B. Keetley on *Surgery of the Knee-Joint;* 96 pages on *Aids to Ophthalmic Medicine and Surgery*, by Jonathan Hutchinson, Jr.; and 159 pages, by Dr. C. L. Salomonsen, on *Bacteriological Technology for Physicians.*

Introduction to Pathology and Morbid Anatomy. By T. HENRY GREEN, M. D., Late Lecturer on Pathology and Morbid Anatomy at Charing Cross Hospital, etc. Sixth American from Seventh English Edition. Revised and Enlarged by STANLEY BOYD, M. B., B. S., London, etc. Illustrated by 167 Fine Engravings Philadelphia: Lea Brothers & Co. 1889. Cloth. 8vo. Pp. 539. (From Publishers.)

While we regret that Dr. Green has withdrawn his guiding hand from the revision of this work, we are glad to find a worthy and capable successor in Mr. Boyd, who was formerly Pathologist to Charing Cross Hospital. The additions to the present American edition are too numerous to undertake even their enumeration; but "Green's Pathology" has become so well-established as authority among doctors of this country, and is so popular as the text-book on Pathological Anatomy, that it will serve every purpose of a book notice to say that this sixth American is "up to the times," and is an improvement in every way of any former issue.

Editorial.

Buffalo Lithia Water in Lithiasis, etc.

The report given in this number by Dr. Claiborne must necessarily attract attention because of the remarkable solvent properties exhibited by the Buffalo Lithia Water in the case referred to, and because the author is too well known as a close observer and a cautious writer to allow any to suppose that he has made the record without having carefully surveyed the ground beforehand. We might add a case coming under our care, in which the solvent properties of these Waters were very decided, but by no means so marked as in the case reported. Prof. Geo. B. Fowler, of the New York Polyclinic, in one of his contributions to the *Reference Hand-Book of the Medical Sciences* (Vol. I, page 718), pronounces himself as favoring its use in lithiasis, etc. Dr. Henry B. Millard, of New York city, in his standard *Treatise on Bright's Disease, etc.* (2nd edit, page 242), also specially recommends the continuous use of Buffalo Lithia Water to remove the uric acid diathesis. Indeed, the close observation of too many experienced practitioners, confirm the claim of the solvent property of Buffalo Lithia Water over many urinary calculi, for any one longer to doubt the record of facts. In our opinion, these Virginia Waters are in every respect the equal, if not superior, to the much vaunted Vichy Water.

The Southern Surgical and Gynæcological Association

Is an organization which is surprising many in the extent of its territory and the vastness of its influence. It was but the second annual session that was held last month in Nashville, and yet, with perhaps the single exception of the American Medical Association itself, there seems to be no Association in this country whose ranks are so crowded by men of more than National reputation, and whose proceedings are so abundantly rich in papers, and discussions so practical and valuable. The first session was held a year ago in Birmingham, Ala., when that remarkable organizer and systematic worker, Dr. W. E. B. Davis, was made Secretary, and when that Surgeon, of perhaps the most honors of any in this country, Dr. Hunter McGuire, of Richmond, Va., was made its President. The extensive influence of this great Surgeon of America, was plainly manifest and widely exerted, bringing together men of great renown from the South, the West and the North—even from Canada—and adding their membership to the rôle of an organization that some had thought would be a trival affair, but which turns out to be an Association whose proceedings must hereafter be looked upon as authoritative deliberations. While Dr. Davis is continued as Secretary, Dr. George J. Engleman, of St. Louis, Mo., is made the President. If this eminent gynæcologist but follows the road to success so well laid out by his illustrious predecessor, it will indeed be an honor to continue, as it is an honor now to be a member, of this wonderful Association. We give in this issue quite a full synoptical report of the recent proceedings. We predict a great meeting in Atlanta, Ga., during the Fall of 1890. All matters of information relating to this organization will be cheerfully given by either the Secretary or the President.

Counterfeiters of Bromidia Punished.

Chas. Chadwick, Otis R. Wyeth, Louis A. Schoen, Geo. J. Schoen, Chas. F. Herrmann, Geo. Eyssell, and Horace L. Roy, druggists of Kansas City, Mo., were before Judge Worthen October 28th, 1889, and each fined $500 and costs for counterfeiting a trade-mark preparation known as "*Bromidia.*" This information is a matter of interest to the profession, and should put doctors and patients on their guard to see that substitutions for prescriptions are not elsewhere practised by unprincipled apothecaries, who seek to dispose of their stocks rather than to fill the prescriptions of the physicians.

Now is the Time to Vaccinate.

To stamp out a preventable disease, render the soil for implantation of the contagium unfertile. Many children of six months of age and over have not yet been vaccinated. Take advantage of the cool weather of the fall and winter months to make thorough vaccinations. The New England Vaccine Company, of Boston, Mass., furnish perfectly reliable bovine vaccine virus, on ivory points or quill slips, at $1 for ten, or 20 cents each, point or quill. Orders can be sent direct by mail or telegraph. For Virginia and the States immediately adjoining, Mr. T. Roberts Baker, of Richmond, Va., is the agent, and receives fresh supplies almost daily, and the points or quills will be sent by return mail.

The Virginia Pharmacal Company

Has opened its manufactures to the trade. For the present their stock is not complete—being mostly fluid extracts and elixirs. But additions will be made from day to day, until in a short time every article of the Pharmacopœia can be supplied. We can vouch for the high character of the pharmacists of this city who have organized this Company, chiefly for the purpose of securing undeniably perfect drugs, "up to full standard." The Company has also sought the best of manufacturing pharmacists, etc., in the country to take charge of their works. They have Mr. Andrew T. Snellings, for ten years in the laboratory of Messrs. W. H. Schieffelin & Co., in personal charge of the manufacture and preparation of all the products of the Company.

The Medical and Surgical Reporter,

Of Philadelphia, Pa., in its advertisement in this journal makes a most liberal offer. Read it, and respond as suggested. It says rightly that "we want the friends of this journal to be the friends of the *Medical and Surgical Reporter*," for the *Reporter* is a most worthy weekly journal in every respect. Be sure to read the special offer in the advertisement.

The American Academy of Medicine

Is endeavoring to make as complete a list as possible of the Alumni of Literary Colleges, in the United States and Canada, who have received the degree of M. D. All recipients of both degrees, literary and medical, are requested to forward their names at once to Dr. R. J. Dunglison, Secretary, 814 N. Sixteenth street, Philadelphia, Pa.

Messrs. Wm. R. Warner & Co.

Received a silver medal at the Paris World's Fair, being the highest of its kind, in recognition of the following claims: *First.*—W. R. Warner & Co.'s Pills, quick solubility and accuracy. *Second.*—Reliability and permanency unsurpassed. *Third.*—Perfection in coating, thorough composition and accurate subdivision. *Fourth.*—Excellence in solubility of the finished product in from four to six minutes. *Fifth.*—Quinine Pills, for accuracy in weight and purity of material. Also for Warner & Co.'s Effervescent Salts: *First*—Superior effervescing properties. *Second.*—General elegance and excellence. *Third.*—Stability of the effervescing quality sustained by critical examination.

This is the thirteenth World's Fair Medal which attest to their superiority. Physicians should be careful to specify Warner & Co.

The Physician's Visiting List (Lindsay & Blakiston's),

Is out for 1890, and is "as good as ever." The fact that this is the 39th year of its publication, without material change of plan of arrangement, and yet each year containing, in the pages given to printed notes and tables, memoranda of doses, and advances of the year before, indicates the great popularity of this Visiting List. The List is put up with pocket, pencil, and flap, is well-divided into departments for patients, monthly memoranda, addresses of parties, obstetric engagements, deaths, bills, cash, etc., and is of convenient size for the coat-pocket. The regular edition is arranged for 25 patients a day or week—price, $1; for 50 patients, $1.25; for 100 patients, $1.50, etc. The publishers, Messrs. P. Blakiston, Son & Co., of Philadelphia, also publish an interleaved edition, a perpetual edition, a monthly edition, etc.

North Carolina Insane Asylum.

In view of the slanderous charges against Dr. Grissom—of which, however, the Investigation Board acquitted him—he felt called upon to resign official connection with the North Carolina Insane Asylum. Dr. William R. Woods was thereupon elected his successor as Superintendent, and Dr. J. R. Pearsall was elected Assistant Physician. If the new management succeeds as well as the old in making advances and improvements, it will not be long before the North Carolina Insane Asylum will be the model of the United States.

The Medical Summary Physician's Call-Book and Ledger Combined,

Arranged by Dr. R. H. Andrews, of Philadelphia, Pa., Editor of *Medical Summary*, accommodates daily charges for 400 families, each account for the year on a single page. It also contains an obstetrical record, death record, nurse's address, vaccination engagements, cash received, general memoranda, pencil tablet, a thumb index, tuck, and pocket, etc. It measures 7¼x4½ inches, and is about three-fourths inch thick. It can be conveniently carried in a buggy pocket, or used daily on office-table as soon as the doctor returns from his rounds, but is entirely too large for the ordinary coat-pocket. Its arrangement is first-rate, however, as it requires but one entry to keep an easily referred to account, useful for any year. Price, $1.50.

The Medical Mirror

Is the title of a monthly medical journal, to be begun January, 1890, in St. Louis, Mo., by Dr. I. N. Love, of that city, as Editor—$2 a year in advance. It will earnestly strive to perfectly organize the profession of the Mississippi Valley. It will endeavor to be what its title indicates—a reflector of the profession and its progress. Dr. Love does not enter the journalistic field as a new broom exactly, but as an editor who, by love for editorial work and as one who has been trained by years of experience, has an established reputation already. We predict a successful career, and he will be the fortunate subscriber who begins with the first number and continues as such during his lifetime as a practitioner.

Dr. Wm. A. Hammond's Sanitarium,

We learn, has proved a great success as to the amount of patronage. But what is of practical interest to the profession is that Dr. Hammond is conducting experiments in the treatment of epilepsy by localizing the brain lesion, trephining and paring the convolutions, etc., the results of which he will publish in the near future.

Mr. Foy's Book on Anæsthetics,

Noticed in our November number, has been ordered by Messrs. West, Johnston & Co., booksellers, etc., of this city, in sufficient lot (some 200 copies) to supply booksellers in the United States, etc. We would be glad to know that many of our subscribers had secured the book, which is really a useful, interesting and instructive volume.

Dr. Ephraim Cutter, of New York,

Is still in England demonstrating to the profession his slides of microphotographs of healthy and diseased blood. At one of his demonstrations, amongst others, the Medical Director-General of the British Army and the Lord Mayor of London were present. Later, Dr. Cutter went to Aldershot, and demonstrated to the Medical Staff, at the Headquarters of the British Army, and was tendered an honorary dinner by the same. Dr. Cutter's work, "*Food in Motherhood*," is being pushed through the press by a London house, and will also be published in New York.

The Physician's Pocket Reference-Book and Visiting List for 1890,

Issued by Messrs. J. H. Chambers & Co., of St. Louis, Mo., measures 6x3¾ inches, is neatly bound, and well-arranged, and its net price is only 75 cents. It contains calendar, prediction of date of labor, artificial respiration, care of galvanic batteries, disinfectants, examinations of urine, poisons and antidotes, table of doses and new remedies, blanks for visiting list, bills, cash, obstetrics, deaths, general notes, etc. It allows 25 names to the page in the visiting list.

The Florida Practice and Property for Sale,

Advertised by Dr. W. H. Stewart, of Anthony, Fla., appears to be even a better bargain than it at first appeared. The property alone is worth every dollar of the amount charged, as from it alone a good living and a fine profit can be easily developed. But, in addition, Dr. Stewart, who has larger business interests elsewhere, will turn over to the purchaser, if he be a properly recognized physician, a practice which turns in from $2,000 to $2,500 a year cash, and into which practice he proposes to introduce him.

Dr. Carl Koller,

Who achieved such world-wide renown in the discovery of the application of cocaine as a local anæsthetic, has been appointed instructor in ophthalmology at the New York Polyclinic.

Dr. Joseph Taber Johnson, of Washington, D. C.,

Who has achieved eminence as a gynæcologist, has been re-elected President of the Obstetrical and Gynæcological Society of his city for the ensuing year.

Phosphorus for Diabetes.

Mr. Balmanno Squire, of London, reports a case (*Med. Press*, Nov. 20) well worth following up. A man, aged 60, with diabetes, was brought to him for prescription for a long standing eczema. He prescribed one phosphorus "perle" (āā gr. $\frac{1}{30}$th, dissolved in oil) three times daily for three days, and then, if no nausea resulted, two "perles" three times daily. The eczema got nearly well, and the diabetes was greatly better at the end of ten days—there being no call to get up at nights, and the quantity of urine has suddenly diminished to about normal amount, and the pale color of the urine is now fairly natural, and he is no longer troubled with thirst Dr. Goodhart, after a critical urinary analysis, fully confirmed the diagnosis of diabetes. Mr. Squire does not pretend to say *how* the phosphorus acted so nicely, but simply alludes to the well-known action of phosphorus on the liver.

Treatment of External Hæmorrhoids.

The Paris correspondent of the *Medical Press*, Nov. 20, says the following plan is followed in Paris with marked success:

℞. Chrysarobine ..... gr. xv.
Iodoform ..... gr. vj.
Ext. belladon. ..... gr. x.
Vaseline ..... ℥vj.

Mix. Apply a little of this ointment several times a day on the piles.

Internal treatment:

℞. Chrysarobine ..... gr. xv.
Iodoform ..... gr. ss.
Ext. balladonnæ ..... gr. ¼th.
Cacao butter ..... q. s.

Mix. Make one suppository and insert.

In three or four days pain and hæmorrhage disappear, and it is rare that after two months the cure is not complete.

Engraving and Biographical Sketch of Dr. Lewis Albert Sayre.

An elegant steel engraving and biographical sketch of this great surgeon appear in the November number, 1889, of the *Magazine of Western History*, in the department devoted to "Eminent Men of the Day."

The Index Catalogue of the Library of the Surgeon-General's Office, United States Army—Authors and Subjects—Vol. X. O–Pfutsch,

Has recently been issued from the Government Printing Office, Washington, D. C. The volume includes 14,265 subject titles, and 29,421 titles of periodical articles included between the letters O and Pftusch, alphabetically arranged. The Index is invaluable.

A Dinner to Dr. Joseph Parrish

Was given at his home in Burlington, N. J., November 12th, by the American Association for the Study and Cure of Inebriety (of which he was President)—that day being the 71st anniversary of his birth. Several addresses were made, and the occasion was one of great brilliancy. No one could have been more deserving of such a compliment.

Obituary Record.

Dr. John Gifford Skelton

Died suddenly at his home in Richmond, Va., October 31st, 1889, aged 74 years. He was born in Powhatan county, Va., April 29th, 1815. His literary education was received from private schools, and from the University of Virginia, while his medical studies were begun as a pupil of Dr. George B. Wood, of Philadelphia, and his degree as Doctor of Medicine taken from the University of Pennsylvania, in 1838. He at once began practice in his home in Powhatan county, Va. In 1866, he removed to Richmond, Va., in which city he became a leading practitioner. He was one of the early members of the State Medical Society, and the Richmond Academy of Medicine.

As a physician, Dr. Skelton was successful in the truest sense of the word, adding conservatism to the courage and fertility of resources always at his command. At the bedside his calmness, equanimity of mind, and readiness of resource were remarkable; while his firmness and promptitude in treatment, with the self-reliance of a sound judgment and wide experience, were blended with gentleness, patience, and a sympathy deep, yet under perfect control.

The rewards of appreciation and confidence attended his conscientious ministrations. In his relations with brother

practitioners, he was noted for modesty, courtesy, and kindness; his advice in consultation was frequently sought, and his wisdom, always associated with a deferential consideration of the opinion of others, made him a model counsellor.

As a man, he was an example for all. He was a high-toned Christian gentleman, his varied duties being sweetened with the "height charity," and his life resembling the deep stream whose very stillness suggests a power not always fully known until the waters have ceased to run. He died, as he wished to die, contending with an enemy whose approach to himself he did not dread; and he has left an influence for what is good and pure which will never cease to widen. Peaceful in his life, so was he peaceful in his death; and those who loved and honored such a symmetrical character, know that his life has been, and will continue, a blessing to the world.

Resolutions of respect were passed by the Vestry of Monumental Church, of which the deceased was a member. The following tributes to his memory were paid by the Richmond Medical and Surgical Society (with the profession of Richmond), and Richmond Academy of Medicine, respectively:

At a meeting of the Richmond Medical and Surgical Society held Friday, November 1st, the following resolutions were adopted.:

Whereas on the 31st day of October, 1889, there died in the city of Richmond, John Gifford Skelton, in the seventy-fourth year of his age:

Resolved, That while we, the members of the Richmond Medical and Surgical Society, and the profession of the city, bow in humble recognition to the supreme will of God, death has claimed one of our most shining lights—a man who from long and large experience has ever been ready to give his best talents for the alleviation of human suffering, to the rich and poor alike.

Resolved, That we have lost in him an able adviser, a skilled consultant, a kind friend, and a most courteous Christian gentleman.

Resolved, That we attend his funeral in a body.

Resolved, That a copy of these resolutions be spread upon the minutes of the Society, published in the daily papers and medical journals of the city, and sent to the bereaved family. Drs. Hugh M. Taylor, George Ross, M. D. Hoge, Jr., *Committee.*

At a called meeting of the Richmond Academy of Medi-

cine, held November 1st, at 6 P. M., the following report in regard to the death of Honorary Fellow John G. Skelton, M. D., was adopted:

The occasion of our sad and unexpected meeting to-day, is to do honor to the memory of Dr. John Gifford Skelton, late a member of this Academy. While among us his presence was always a benediction. Dr. Skelton was a model physician. In his professional intercourse with his brethren he was alike respectful to the opinion of the young and the old. The ethics of the profession he well understood and always carefully observed.

Long years of virtuous living and high professional endeavor dignified all his movements. Elegant in manners, gentle and tender with the sick, sympathetic in affliction—the whole heart and mind mellowed by long years of cheerful Christian hope, he died leaving an example to the profession which all should seek to imitate but none may hope to excel.

Resolved, That the members of this Academy attend his funeral in a body, and that a copy of these proceedings be sent to his surviving family and also be entered upon our journal, and published in the *Virginia Medical Monthly* and *Practice*. William W. Parker, M. D., Isaiah H. White, M. D., O. A. Crenshaw, M. D., William S. Gordon, M. D., John R. Wheat, M. D., *Committee*.

Honorary pall-bearers were appointed by these societies, in both of which he was an honored member. The funeral services, conducted by Rev. John B. Newton, D. D., took place from Monumental Church November 2nd, and were largely attended. The interment was in Hollywood cemetery. W. S. G.

Dr. Zachariah Johnson Walker and his Wife

Were killed November 8th, 1889, in the temporary court room near Brownsburg, Va. It seemed that Dr. Walker thought his wife had been insulted by a neighbor named Miller. For a day or two, armed with a shot gun, he was on the look-out for Mr. Miller, when he was arrested. In the magistrate's court, he refused to be bound over to keep the peace until he could slap Miller's jaws—at the same time advancing on Miller, whom he killed with a knife. The sons of Miller at once commenced firing upon Dr. Walker with pistols, and shot him a number of times—the fatal shot being one that penetrated his bowels. One of the sons was also severely shot. After Dr. Walker had fallen as the

result of his wounds, Mrs. Walker, who was also in the court room, rushed forward, and kneeled down, and was weeping over her dying husband, when she was shot through the head and died instantly. Dr. Walker died nine hours after the shooting. As some of the newspapers report it, the affair was simply horrible.

Dr. Walker was born in Rockbridge county, Va., January 19th, 1834. He graduated academically from Washington College, Va., in 1854. After teaching school for several years, he attended medical lectures at the University of Virginia, and the next year, (1858), he graduated in medicine in Philadelphia. In 1859, he married Miss Brooks, of Augusta county, Va., and began practice at Brownsburg, where he formed a partnership with Dr. S. B. Morrison, of Rockbridge Baths, Va., which continued for 17 years. He entered the Confederate Army as a lieutenant, and afterwards acted as a surgeon. After the war he returned to private practice. For years, he was a zealous Fellow of the Medical Society of Virginia, and was one of the original Medical Examining Board of Virginia—from January 1st, 1885, until his resignation a few weeks before his death, when he found his health failing as the result of a wound of the hand received some three years ago while dispersing some political rioters. He was as gentle as a woman, and yet as brave as a lion—sensitive to the slighest insinuation that reflected upon matters of honor. He was an eminent practitioner, with a reputation extended far beyond the limits of the State. He was exceedingly popular wherever known, and influential as well. His death is felt as a loss in reality.

Dr. R. P. Grymes

Died at his home in Winterpock, Va., November 23rd, 1889, in the 66th year of his age. He was originally from Orange county, Va., but moved to Chesterfield county, Va., some forty-five years ago, where he has ever since been a practitioner of medicine, and prominent in the profession of his section.

Dr. Robert G. Cabell

Died at his home in Richmond, Va., November 8th, 1889, aged about 80 years. He was sick only about two or three days. During the prime of life, he was one of the most prominent of the several doctors of marked ability then in practice in this city. He was not a member of any of the medical organizations of the State or city.

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Original Communications.

ART. I.—Some Organic Non-Valvular Diseases of the Heart and Arteries.*

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SECTION I.—*Atheroma, Arteritis Deformans, Arterio-Sclerosis, Aortitis.*

The great precision which, in many cases, may be attained in the diagnosis of valvular diseases of the heart, and the more striking character of the symptoms have led, I think, to less stress being laid upon some other conditions which are equally, and sometimes, more important. Upon two or three of these, I propose to offer a few remarks, with some illustrative cases.

Hypertrophy of the heart has been sometimes spoken of as an independent or idiopathic disease; but I presume at the present day, it is generally recognized as a conservative process, for which there is some good reason existing, more frequently outside of the cardiac muscle than within it.

*Read before the Medical Society of District of Columbia, November 20th, 1889.

The most notable example of this, is to be found in the hypertrophy which so frequently accompanies Bright's disease, and, in particular, the form known as interstitial nephritis or contracting kidney.

I have no intention of discussing the various theories which have been put forward to account for this connection, noticed ever since the time of Bright himself. The point is simply that all of them recognize some obstruction or difficulty in the circulation as the bond of union. It may be either a diminution in the arterial area from atrophy of the renal vessels, a change in the blood itself increasing the friction between itself and the tubes through which it passes, or an increased resistance throughout the arterial system.

Here, again, as to the causes of this resistance, we meet with diverging opinions, and the changes described in the arteries by one set of observers, are declared by others to be imaginary or artificial. There are cases, however, where causes for such hindrance to the circulation, may be found in arterial changes amply sufficient and indubitable, and which need no artificial preparation to be clearly seen.

General atheroma is a sufficient cause for enlargement of the heart, which may later, from overwork, to which it is unable to respond, or from insufficient nourishment, go on to dilatation, weakness, and degeneration.

If to the general atheroma be added, as very frequently happens, a similar change in the coronary arteries, the nutrient vessels of the heart itself, there is an additional and very efficient cause for the heart muscle undergoing degeneration even more rapidly. This change may be localized, so that we get spots of fatty degeneration and softening, with consequent rupture.

Whether this atheroma, or arterio-sclerosis of the aorta, or chronic aortitis, is a mere accidental concomitant, or an addition to the sclerosis of the smaller arteries, so often spoken of as the essential arterial lesion in Bright's disease, and as the connecting link between the renal and cardiac changes, is not so certain. It is, however, certain that the contract-

ing kidney is very frequently accompanied by disease of the arteries, and consequent disease of the heart.

On the other hand, the arterial disease may be present without the contracting kidney, or, at most, when the renal lesion is so slightly advanced as to have produced no important symptoms. In these latter cases, the symptoms, so far as the heart is concerned, are not very different from what we should find if we had in addition to the aortic lesion, the progressive interstitial nephritis. The connection of angina pectoris with aortic sclerosis, has been much insisted on by Traube. Dr. Chew, of Baltimore, (*Trans. Assoc. Amer. Phys.*, Vol. III), has described the occurrence of angina pectoris in connection with interstitial nephritis.

The late Dr. Mahomed, used to speak of cases of Bright's disease, which died without any disease of the kidneys; and, although his nomenclature is not to be approved, yet he thereby called attention to a very important pathological fact.

The name Bright's disease can, it seems to me, be applied with propriety only to the conditions described by Dr. Bright, and these are, undoubtedly, diseases of the kidneys, usually, and correctly known, by his name. The paradoxical phrase of Mahomed, has, however, the merit of forcing on the attention the fact that we have many cases in which symptoms exist on the part of the heart, such as palpitation, dyspnœa, dropsy, angina pectoris, and sudden death; and accidents like cerebral hæmorrhage, such as are frequent in Bright's disease, and in which, notwithstanding this, there are no, or only very slight, indications on the part of the kidneys of the organic disease, and in which also, there are no valvular lesions of the heart.

Case I.—A few weeks ago I attended an autopsy which seemed to illustrate some of the foregoing points, and the attending physician, Dr. J. W. Dunn, has kindly furnished me with the history:

A prominent pharmacist, age about 53 years, had enjoyed good health until some five years ago, when he began to run down, lost flesh, and assumed an icteric hue, so marked as to lead, in conjunction with gastro-intestinal disturbance and increased liver dullness, to a suspicion of a malignant

disease of the liver. The heart was hypertrophied, with a heaving impulse, and extension of the dullness downward and to the left. Loud systolic murmur during the last year. Urine contained varying amounts of albumen during the same time. Dyspnœa was a prominent symptom for at least twelve months before death. Crepitant räles over both lungs for several months.

The autopsy showed adhesions of the left pleura. The heart was much enlarged, measuring six and a half by five inches. Both auricles and ventricles were thickened. No marked valvular disease, except a little calcareous thickening around aortic valve. The edges of the mitral and tricuspid valves were a little thickened, but soft and œdematous looking. The liver was normal in size and appearance, with the exception of some congestion. The gall bladder contained thirty gall stones, from the size of a pea to that of a bean; one of them being quite firmly imbedded in the beginning of the duct.

The large arteries, so far as examined, were highly atheromatous, the aorta beginning to be so about two inches above the valves, and extending into the iliacs, beyond which the examination was not carried. The innominate was in the same condition, as were also the coronaries. In the latter, however, there were no clots and no complete obstruction.

The kidneys were rather large, the capsules not adherent, the surface a little mottled, but not rough. On section, there was some congestion at the periphery of the pyramids. The cortical substance was not atrophied or yellow.

Case II.—A man aged about 60; large and fleshy, felt as well as usual in the forenoon. While sitting by his engine, he died suddenly in the afternoon.

The arteries at the base of the brain, and extending into the middle cerebral, were highly atheromatous. There was no hæmorrhage or softening in the brain. The lungs were crepitant, and there was no large amount of hypostatic congestion

The heart was large, the left ventricle thick and soft. There was slight endocarditis and calcification of the aortic valves, but they were perfectly competent as were also the thickened mitrals.

The arch of the aorta was much deformed and thickened. No adherent thrombi in heart, which, in fact, contained but little blood. Kidneys imbeded in much fat; left of normal size, capsule not adherent; rather dark red; right swollen, capsule not adherent, a few cysts on the surface.

Case III.—A man, aged 70, had complained of distress and dyspnœa. I saw him professionally for the first time immediately after his sudden death, which followed such an attack.

The autopsy showed the lungs not notably congested. The heart large, but not fatty; left ventricle thick, but not very firm. No valvular lesions; aorta atheromatous. The cerebral arteries were stiff, but there was no hæmorrhage or occlusion by an embolus. The kidneys were rather small, but not distinctly diseased. Urine taken from the bladder after death contained neither casts nor albumen.

Traube (*Gesammelte Abhandlungen*, Vol. III,) gives several cases of arterial sclerosis connected—some with attacks of angina, and some with more chronic symptoms. Several of them terminated suddenly.

In his view the early stage of this affection consists in an abnormally high arterial tension, consequent upon an overfilling of the venous system, thus checking the capillary circulation, and producing increased resistance. If this last long enough, the organic changes begin, and go on to sclerosis and arteritis deformans. Patients thus affected are apt to be plethoric, and to owe their condition to over-eating and drinking. The symptoms correspond largely to the cases described by Stokes, under the name of "weakened heart," a designation which Traube adopts in the titles of several of his papers, although he says that Stokes, notwithstanding the accuracy of his description, did not understand the true pathology.

In such cases as these, the heart becomes enlarged simply from being obliged to work against the resistance offered by the atheromatous vessels, or perhaps, it would be as correct to say without the assistance which should be given by the normally elastic vessels. The normal elasticity of the aorta plays the part of the air-chamber in an ordinary force pump in converting the successive shocks of the cardiac impulses into a more continuous flow; and when this is lost, the burden upon the heart becomes greater.

How far is this condition susceptible of diagnosis, and how sure can we be that it is the only cause of symptoms

that may be present, and which might point to some other form of circulatory lesion?

The absence of definite cardiac murmur upon auscultation must often be one point, but it would not be safe to rely too much upon this, since often, as in the first case, a loud systolic murmur may be present for months, possibly due to the slight and unimportant thickening of the aortic valves, or more probably, to a relative insufficiency of the mitral after the heart has become dilated.

The examination of accessible arteries like the radials, temporals, and sometimes the brachials, may give much help, but cannot be implicitly trusted, since the atheroma may be much more advanced in the larger than in the smaller vessels.

A degree of resistance, however, not so extreme and not having the nodulated feel, such as corresponds to a highly developed atheroma, may be detected in the radial arteries by the finger, or better, by the sphygmograph.

For a time, at least, the condition of high tension with inelastic arteries, will give a tracing marked by a long continuance of the tidal wave, and a comparatively slight prominence of the dicrotic. Traube evidently relies chiefly on the character of the pulse, together with hypertrophy of the heart, for the diagnosis of chronic aortitis.

Michel Peter (*Maladies du Coeur*, Paris, 1883,) says that the sounds of the heart as heard in an aorta affected by chronic (or acute) inflammation, are dry, hard, and metallic, or as if produced by parchment, pasteboard, or sheet iron, respectively.

He adds also another sign, which, so far as I am aware, has not been spoken of by any other author. If a certain amount of enlargement of the ascending aorta has taken place, it may be detected by percussion over the pre-aortic region at the level of the second rib. The dullness here is produced by the ascending aorta, together with the pulmonary artery; but, as the latter vessel is seldom materially dilated, any excess of dullness above the normal, is attributable to the aorta, and constitutes a valuable diagnostic

sign. This normal dullness varies in the male from four and a half to five and a half centimeters, and from two and a half to four in the female. It is, of course, only in this region, and sometimes above the sternum, where the top of the arch may be felt, that the thoracic aorta is accessible for direct observation. This is indeed a position which is most frequently affected; but the condition of vessels at points below, is to be judged of only less directly.

Chronic endarteritis is by no means, or most frequently, the only lesion present in any given case. On the contrary, it is far more likely to be a complication of, or be complicated by, lesions of the valves, or of the heart muscle, or of the renal vessels and chronic nephritis, or with the vascular lesions giving rise to cerebral hæmorrhage or thrombosis. It is not to be wondered at, therefore, that its symptomatology is not always simple or always the same. In these various complications, the question which often arises, is not so much the differential diagnosis between this and some other affection, but rather, how much weight is to be laid upon this, and how much upon some other lesion also to be recognized as present.

Fortunately, the diagnosis can be generally made, if not with absolute anatomical precision, yet with sufficient accuracy for therapeutic purposes. The treatment can usually be understandingly directed, even if the autopsy is liable to disclose more than has been anticipated during life.

In regard to the treatment of chronic aortitis, it is, of course, well understood that no drug can be expected to have any direct control over the progress of the lesion, unless we make exception of iodide of potassium, in cases where the disease may have a syphilitic origin. This etiology, however, is more likely in the acute or sub-acute form, and then the iodide should be freely used. As in many other diseases, there may be cases where the patient should have the benefit of the doubt, and be treated as if syphilis were present, even when there is no positive proof of it.

In the chronic form, that which I have had especially in mind in these remarks, there is little reason to suppose that

this drug or any other retards the progress, or wards off the objects; but it may very properly be used unless there is special reason to the contrary.

The cure of chronic aortitis is to be begun before the disease begins, or, at the latest, before it has advanced far enough to be diagnosticated. It has been well and truly said, that a man is as old as his arteries. The various wears and tears and worries of life, which cause a greater strain upon the arteries, while possibly impairing their nutrition, we might sagely tell our patients to avoid, if young men came to ask us how they might live to grow old, or if they would, or could take such advice if given.

Some special causes, however, we may have more influence upon, and even if no step backward can be taken in the downward path, avoidance of the causes may at least delay the descent.

Of course, each advancing year, even with great care, is likely to add to the burden, but the atheroma may begin too early; and, although it is true, as I have just said, that a man is as old as his arteries, it is by no means equally true that he always behaves himself accordingly. That chronic aortitis is not always the result of human vices, or even human trials and misfortunes, is shown by its having been found in a parrot, aged sixty-four years, extending into the small arteries of the legs, wings, and mesentery, and being followed by hypertrophy of the left ventricle, the right being dilatedand thin. (*Jour. Comp. M. & S.* Vol. III.) For all I know to the contrary, this may have been the very parrot that had such a time with the monkey, and no one knows how many more of the same sort.

Traube places the primary fault in an overloading of the venous system with too much fluid; that is, too much eating and drinking, or, as he calls it, "succulenter Lebensweise," or "juicy way of life."

This is sufficient in time, but if the juice is that of the grape or the rye, the process may be much accelerated.

Peter, already quoted, says, "alcoholism is an anticipated old age; the alcoholic lives fast and grows old fast."

Alcoholism is one of the most universally recognized causes of this, as well as of other degenerative lesions.

The gouty diathesis, if not entirely avoidable or curable, may be mitigated by diet and medication.

Lead may be looked upon as a possible cause. I am not aware that such a connection has been actually proved; but the high arterial tension and actual interstital nephritis, are acknowledged consequences of lead poison, and such a theory is at least plausible.

In the actual presence of the disease in the chronic form, we have to content ourselves chiefly with diminishing or postponing, as long as possible, the unfavorable consequences. Atheromatous arteries may last a long time, if not subjected to too great a pressure. Drugs which increase the pressure are usually to be avoided, as also those which induce a violent action of the heart, even if the pressure is lowered. Digitalis is the type of the first class, and nitrite of amyl, the second. Nitro-glycerin is preferable to the latter of these, as having the same general effect, but more slowly. I am inclined to think that when the arteries are rigid and brittle, and the heart is getting on reasonably well by itself, too much interfereance, or if I may be allowed a bit of slang, "monkeying" with the heart will not always improve the matter.

The state of the secretions, as tending not only to the relief of the intra-arterial pressure, but also to the favoring of the physiological metamorphosis and general improvement of the nutrition, is to be carefully looked after. The bowels, in particular, should be kept normally active for two reasons: the first, just mentioned; and the second, because not a few of the serious accidents of arterial degeneration, such as fatal syncope, and cerebral hæmorrhage have been brought on by straining at stool. This, however, does not mean frequent or violent purgation. The propriety of such procedure is to be judged of in each case for itself.

The question of exercise is one of the most important. No one, so far as I am aware, has recommended, and I do not see how any judicious physician could do so, the use of

violent exercise in treating a case with atheromatous aorta, but, as you know, mountain climbing has been recommended in some forms of heart disease, and the complication and obscurities of the degenerative diseases of the heart are such that it would be by no means surprising, if some earnest theorist, thirsting for novelty, were to set such a patient to walking systematically up hill.

It should be remembered that to one set of persons the term "fatty heart" means just as absolutely and exclusively fatty overgrowth or fatty deposit, or cardiac obesity, as it does to another fatty degeneration.

It is possible, that, as Dr. Loomis has just said, fatty overgrowth may profit by the same treatment that would benefit general obesity, but when the heart fibre has begun to degenerate, or even when the dilatation has gone so far that degeneration may soon begin, and the last straw may break the camels back, it is difficult to imagine anything more disastrous. It is this condition, that is, degeneration, which threatens us in cases of atheromatous aorta. Whether fatty overgrowth may be present in addition, is of comparatively little consequence. If it is, it only adds to the burden instead of decreasing it; and it would be a sad mistake to consider it the essential condition, and treat the case accordingly. If moderate exercise improves the general health, and can be undertaken without too great strain upon the circulation, it may be permitted; but it certainly should be so with great circumspection and not on any notion, new or old, that it is good for heart disease in general.

SECTION II.—*Fatty Degeneration of the Heart* (*Postponed.*)

SECTION III.—*Disease of the Cardiac Plexuses and Ganglia.*

A third set of affections, about which much less is known than about either of the others, partly perhaps because they are really rare, but principally because they escape almost entirely ordinary *post-mortem* observation, are those of the nerves and ganglia of the heart. By this I mean not the so-called "nervous affections," or "functional diseases" of

the heart, but actual organic disease of the structures mentioned.

In an article upon this subject, published in the *Boston Medical and Surgical Journal*, Vol. CXII, page 403, I have quoted largely from Peter, who has given more attention to this subject than any other author I am acquainted with, and who has assembled from literature the largest number of cases. This literature is, however, very scanty.

It is possible that, like many pioneers, he may be a little over-confident, and pretend to a precision and completeness not really reached; but the subject is an important practical one, and a little over-enthusiasm does no harm. I shall draw largely from him, but will be as brief as possible.

Certain nerves may, from their anatomical relationship, give rise to very important symptoms in connection with organic disease of the heart, and, in particular, aortitis and pericarditis.

The phrenic nerves pass down to their destination in the diaphragm on each side of the pericardium and closely adherent thereto. They may thus be irritated or inflamed by contiguity; a condition naturally giving rise to great disturbance of the respiration.

The most important effects, however, are upon the cardiac plexuses themselves. These arise, as you remember, from the pneumogastric and sympathetic nerves in the neck and thorax, and unite into a network situated along the arch of the aorta, and principally between the aorta and pulmonary artery, passing downward, to be distributed along the coronary arteries and the muscular walls.

The pericardium, as we know, extends somewhat above the heart, and its visceral layer lies close to the great arteries where their trunks are surrounded by the network of nerves.

Much of the severity of the symptoms, in some cases of pericarditis, has been suspected to arise from the irritation and inflammation of the nerves at this point. Peter is not alone in this, for he quotes Sibson in confirmation.

A case occurred in my hospital service several years ago,

which, at the time, made me think that there must have been some influence at work beyond the lesion which was alone evident to the usual examination.

In the briefest words, it was that of a man, aged 45, who was supposed, and I still think justifiably so, to have mitral valvular disease, with a rapid, irregular, and not strong pulse. After some improvement in his general symptoms, and in the character of his pulse, he died.

The autopsy showed no thickening or contraction of any valve, but there was probably relative insufficiency of the mitral.

Between the aorta and the upper part of the auricle, the surface of the pericardium was thickened, dull, and generally ecchymosed.

I had not, at that time, seen the suggestive work of Peter, and no examination was made of the nerves. If there had been, it seems highly probable to me that we might have found, at this point where they came in close proximity to this one inflamed spot of the pericardium, that there was a local neuritis. I cannot help attributing the severity of the symptoms, in comparison to the extent of the obvious lesions, in part at least, to such a localized inflammation of the cardiac plexus.

These same plexuses may be dragged upon or compressed by calcareous and enlarged lymph glands, which are very numerous in the neighborhood. In chronic aortitis, involving, as it usually does, the arch, or in aneurism of this region, these plexuses have been several times found affected by changes resulting from the mechanical tension to which they are subjected by the enlarging vessels, around which they are so closely interwoven.

Peter attributes to this irritation or inflammation the attacks of angina to which patients with atheroma of the aorta are so frequently subject. These attacks are usually attributed to the increased arterial tension, aggravated or not by some special exertion. There is, however, nothing in either one of these explanations which necessarily ex-

cludes the other, at least as applied to a portion of the attacks.

The increased tension is not always present, and we may infer, from the fact that nitrite of amyl, often so useful, is not always so, that some other element is involved in a part of the cases.

A few series of observations have been undertaken within a few years upon the microscopic condition of the nerves and ganglia in certain general diseases, as well as in those of the heart.

Putjatin (*Virchow's Archiv.*, 74, page 461,) examined the ganglia in three groups of cases. In the first, with disturbance of the cardiac activity, and only slight changes in the heart itself, he found lesions in the ganglia. For example, in a man, æt. 40, subject to attacks of angina, who died suddenly, he found increased vascularity of the ganglia, with accumulation of cells around the vessels.

In the second group, where the changes in the heart itself were more marked, he found, in addition to increase of fibrous tissue and atrophy of the muscle, a development of connective tissue between the ganglion cells and the cells compressed, the capsules being thickened and the protoplasm degenerated.

In the third group of general diseases, the changes in the ganglia were slight; they being congested, with smaller cells, and slight degeneration of the protoplasm.

Iwanowsky, whose paper I was unable to read in the original, much to my regret, as he is the only author who gives careful anatomical descriptions of the location of the ganglia in the human heart, found pathological changes of a degenerative character in these ganglia in typhus.

Uskow (*Arch.. für Path. Anat., &c.*, 1888, 91, page 453.) examined the nerves in cases of chronic cardiac disease, especially hypertrophy, and found that the fibres lost their medullary sheath, and showed the process of multiplication of nuclei. In the cells all the changes were limited to the thickening of their capsules and the appearance of multiplication of nuclei.

The protoplasm showed no changes.

Wassileff (*Centralblatt. für Die Med. Wiss.*, 1876, No. 36,) found, in a case of hydrophobia, changes which he interpreted as dropsy of the capsule.

I regret that I can add nothing to these observations. I have made a few observations, only intended, however, as preliminary to others which I hope may be more complete. I shall be greatly obliged to members of this Society, if they can help me, by sending me specimens of hearts where nervous changes may be suspected, or where aortitis may be present, for investigation as to their nerves and ganglia. The ordinary examination for valvular lesions does not injure them for this purpose. I would suggest, however, that the vessels should be cut high up, so as to preserve the arch of the aorta. Fresh specimens are better, but those preserved in alcohol or other fluids are good.

The diagnosis of this class of affections is, as one may suppose, not always simple. Usually, the question which arises is, not so much whether we are dealing with a valvular disease or a neuritis, as it is whether we have, in addition to valvular or arterial disease, organic changes in the nerves.

Peter lays much stress upon a study, more careful and minute than is usually given, of the pain spontaneously present. Therapeutically, of course, this does not make so much difference, since there would be but little distinction in the treatment for the relief of the pain, whether it were, or were not, the result of a lesion of the nerves themselves, or of inflammation in the muscles or membranes to which they are distributed. It may, however, have bearings on prognosis.

Peter gives the following directions for the investigation of points of tenderness, with a view to a diagnosis of a lesion seated in the various nerves and ganglia. To me, I must confess, they seem a little too accurate to be implicitly depended upon; but, as I have not become sufficiently familiar with them practically, to speak with authority, I give

them in brief, hoping that they may be put to the test of experience.

Pain on moderate pressure with the pulp of the finger, the maximum of intensity being in the fifth and sixth intercostal spaces over the left ventricle, indicates myocarditis.

Pain on pressure in the third left intercostal space near the sternum, corresponding to the auriculo-ventricular fissure, means disordered condition of the ganglion of Remak. This, he says, is often found in smokers.

In the second left intercostal space, close to, or upon, the sternum, tenderness indicates neuritis by propagation from aortic lesion.

The second left intercostal space is evidently to be regarded as a sort of centre of painful affections of the cardiac nerves. From this point, the pain on pressure may be traced upward in the neck, along the line of the pneumogastrics, and finally evoked by pressure upon the second, third, and fourth spinal apophyses, which indicates, according to M. Peter, irritation of the roots of the pneumogastric.

The phrenics may be explored by pressure at their diaphragmatic expansions, and along the neck, at the attachment of the scalenus anticus, to the sternum (sic).

In conclusion, I hope I have said enough to show that diseases of the nerves of the heart are well worthy of further study; and I reiterate my request for specimens which shall, whenever requested, be carefully reported upon.

The usefulness of good Hypophosphites in Pulmonary and Strumous Affections is generally agreed upon by the Profession.

We commend to the notice of our readers the advertisement on page 28 of this number. "Robinson's Hypophosphites" is an elegant and uniformly active preparation; the presence in it of quinine, strychnine, iron, etc., adding highly to its tonic value.

Art. I.—Inflammation of the Ovaries.—(A Lecture Delivered at the Woman's Medical College.)

By WILLIAM H. BYFORD. LL. D., M. D., of Chicago, Ill.

Professor of Gynæcology in Rush Medical College, and Woman's Medical College, Chicago, Ill.

Ladies: The subject of to day's lecture is inflammation of the ovaries. I shall speak of it as I have of general inflammation of the pelvic organs, viz.: of the *acute* and *chronic* forms.

Acute inflammation of the ovaries, uncomplicated with inflammation in other tissues, is a very uncommon thing. Undoubtedly, such cases occasionally occur, but so seldom that it is hardly worth while to consider them to-day, because we have already said that local inflammations of the pelvis are, to some extent, the same, and the symptoms and treatment are similar.

Chronic ovaritis is much more common. We meet with it frequently, uncomplicated with other affections. Often, however, it is complicated with other inflammations. Probably the most common complication is that of inflammation of the Fallopian tubes; in fact, it is a common thing to find inflammation of the ovaries and Fallopian tubes associated; and when that is the case, it is no easy matter to decide which of the two is the more important as far as the health of the patient is concerned. Some eminent authors and pathologists believe that the Fallopian tube is not only the more important pathologically of the two organs, but that it is the more important physiologically also. When we meet with chronic uncomplicated inflammation of the ovary, it almost always manifests itself in such a way as to enable us to decide upon its existence with a good deal of certainty. It is generally the result or succedaneum of the acute form of general pelvic inflammation. The patient has first an acute general inflammation of the pelvic organs, including the ovaries and Fallopian tube; the inflammation in the other pelvic organs subsides, leaving the inflammation in the ovary in a chronic form. Something in the ovary

makes the inflammation linger longer than in the areolar or serous tissue of the pelvic cavity. We have in it a complicated, glandular structure, which, when once inflamed, is more difficult to recover from it. This, I think, is the most common cause of chronic inflammation of the ovaries. We undoubtedly meet with it as a result of transmission or communication of it from the Fallopian tubes. It is believed by some writers that the Fallopian tube is the point of inflammation, whence that trouble spreads from the tube to the rest of the pelvic organs. It is supposed that general inflammation of the pelvis is often produced by the secretions of the Fallopian tube finding their way out upon the serous membrane in the pelvic cavity. It is surmised that the tube, in cases of this kind, is the seat of gonorrhœal inflammation, which spreading through the uterus from the vagina, into the tubes, fills them with pus, which is spilled into the pelvic cavity, thus producing inflammation there.

The morbid anatomy of chronic inflammation of the ovary is a thing which is in a somewhat unsettled state by the profession; and it is supposed, by a large proportion of intelligent men, that we have not as yet discovered any of the important *post-mortem* signs of inflammation in the ovaries. If I were to give them as I see them in removing diseased ovaries, I should say they were:

1. Hyperæmia, or a highly vascular state of the ovary, redness showing itself plainly.
2. An enlarged state of the organ.
3. Decided change in the follicles of the ovary.

Sometimes the inflammation is concentrated upon the stromous tissue of the ovary, which becomes friable or fragile, so that in removing it from the body in ordinary operations, when we lift it or hold it in position for ligatures, it frequently gives way. It tears easily, showing that it is much more fragile in this diseased state than in its natural condition. In other cases, instead of the stroma being frail, it is sometimes hypertrophied and hardened, apparently more completely permeated with coagulable lymph, so that it is indurated instead of being frail and easily broken.

Another noticeable feature in inflammation of the ovary is the multiplication of enlarged follicles, or small cysts. In removing the ovary, we find, in a great many instances, that the follicles are enlarged, so that the ovary is crowded with small cysts, and in that way its general bulk very much increased. The involucrum of the ovary is often more than ordinarily thick, in consequence of inflammation and its condensation from the deposition of lymph. The appearance of these ovaries in such large numbers results from the fact that, instead of the vesicle breaking and permitting discharge, as it ought to do, the tough albugenic membrane prevents it, so that the ovaries enlarge one after another. As before stated, we often find a larger number of sacs in the ovaries than usual; but sometimes we find, as a result of inflammation, large cysts, which break easily when we lift them out of the pelvic cavity.

Another thing that is very common in examining cases of inflammation of the ovaries, is the amount of fibrinous deposit over and around them. Occasionally we meet with cases in which the ovary is covered by a solid mass of fibrinous structure, so that when we try to remove it, the resistance is very great, and occasionally it entirely thwarts our efforts to do so. It is a solid mass, large enough, in some instances, to cover the ovary entirely over. Sometimes there are large bands of false membrane stretching over and across the ovary in every direction, and adjacent contents of the pelvic cavity. This feature in the morbid anatomy is worthy of notice, because it indicates the manner of the origin of chronic ovarian inflammations. These masses of coagulable lymph or fibrin, covering the ovary, are the products of acute inflammation, which have passed and left the parts in this condition, covered up by the fibrin that has been exuded at such a time. The morbid anatomy of chronic ovaritis is quite decided and plainly marked.

The symptoms indicating the existence of chronic inflammation of the ovary may be divided into: (1) *local;* (2) *functional,* and (3) *reflex symptoms.*

The most common, the local symptom, and probably the

most familiar, is pain in the neighborhood of the organ, and the pain is not always confined to this particular locality. There may be shooting pains from the ovarian region upwards towards the spine and down the limb, and into the back. Sometimes there is tumefaction in the region of the ovary. I think the most important symptom, and I *the one* for you to remember, so far as symptoms are concerned, is *pain*, either confined to the ovarian region or shooting in various directions from it towards other parts.

The functional symptoms are usually obvious and very significant. Probably the most constant symptom is derangement of the menstrual function. The menstrual function is more frequently deranged by ovarian inflammation probably than by disease of any other organ of the body, excepting, possibly, that of the uterus. There is in *ovarian dysmenorrhœa* pain at the time of menstruation, situated in the ovarian region, radiating from the ovary to other parts of the pelvis. This pain in the ovary is present, probably, *between* the time of menstruation, but is much more pronounced *at the time* of menstruation than at any other period. *Between the times* of menstruation the pain is not so considerable but that the patient may do ordinary work, but when the menstrual flow comes, the inflammation is increased, and consequently, the patient suffers much more. It is an actual exaggeration of pain and inflammation caused by menstrual hyperæmia of the pelvic organs as a result of the approach of menstruation. If I were to judge by my own observation, I should say the most frequent derangement of the menstrual function resulting from ovarian disease is *suppressed* or *partially suppressed* menstruation. I do not suppose that an *entire* suppression of menstruation is so frequent as a *very great diminution* of the flow, and it is very instructive to notice how this diminution of the menstrual flow sometimes comes about, and how markedly it is connected with ovarian disease.

I have a patient who has almost entire suppression of the menses, from repeated attacks of inflammation of the ovary, which she has experienced in times past—I mean acute at-

tacks, leaving behind them the chronic form. She has been a sufferer for twelve years; she has had five or six miscarriages produced internally, and four or five attacks of acute local peritonitis; the peritonitis sometimes extending over a large portion of the abdomen, so as to make it almost a general peritonitis, and each time after her peritonitic attack, the flow of the menses became less. So that, instead of having a free flow of four or five days as she did in early life, her menses went on to diminish until now the flow is simply a little stained serum, accompanied by severe pain and suffering from ovarian inflammation.

Another one of the functional symptoms is that of *sterility*. When the ovaries are in a state of chronic inflammation, the covering becomes so solid and indurated, that the ovaries do not open and discharge ova. In very many instances, ovulation is in some way complete, and, as a consequence, the patient does not become pregnant. She remains sterile. I could enlarge upon this subject of functional symptoms of ovarian inflammation; but from what I have said on other occasions, I think you will be able to detect the deviations when they occur.

The next set of symptoms we meet with are *reflex* in character. When I speak of reflex symptoms of chronic inflammation of the ovary, your minds at once revert to the immense amount of suffering which these diseases produce in various ways, besides the functional and painful effects I have mentioned to you. There is hardly an important organ, or set of organs in the body, which are not influenced more or less by disease of the ovary in a reflex manner.

There is no doubt but that chronic inflammation of the ovary affects the whole abdominal organs, and, consequently, modifies nutrition. *Dyspepsia* is quite a common thing as a result of the presence of chronic ovarian inflammation. *Constipation* is another. There is a deficient secretion of almost all of the excretory organs, from the reflex influence of chronic inflammation of the ovaries, through the great sympathetic or organic nervous system. And this is why our patients are always unable to eat; why they are gene-

rally so emaciated, so bloodless and depressed. This is the cause in those cases which we denominate *nervous depression* or *neurasthenia*. Most distressing and disastrous reflex effects of this disease are exerted through the voluntary nerve centres. *Hysteria* is one of the effects produced upon the voluntary nervous system by chronic ovaritis. The difference in the intensity of the hysterical condition is very great, and shown in its variety of symptoms. Sometimes the symptoms are slight, the patient being simply nervous and fidgety, instead of being intensely hysterical; while at other times, the voluntary nerves are uncontrollable. *Eclamptic* convulsions are undoubtedly a result of chronic ovaritis in many instances, from its reflex effects upon its nervous centres; I mean the epileptic form of eclampsia. Perhaps *epilepsy* would be a better word. There is no question in my mind, from a good deal of observation, but that it frequently produces real epileptic attacks, and perpetuates them as long as there is disease in the ovaries. The epileptic attacks, after continuing for a long period of time, almost always greatly impair or destroy the intellectual faculties, so that the patient is unable to attend to ordinary work or business of any kind. It is one of the most serious forms of reflex disease of ovarian inflammation.

Another reflex influence is a tendency to *mania* or *lunacy*. It is the observation of others, as well as myself, that many patients become lunatics in consequence of the intense pain and continuance of chronic inflammation of the ovaries. The effects produced upon the mind are becoming so well known, that in cases of lunacy, the uterus and ovaries are examined as to their condition.

A physical diagnosis of chronic ovaritis is sometimes difficult to accomplish, and sometimes it is easy. In persons who are fleshy, and whose abdominal walls are thick and rigid, bimanual examination of the pelvic organs is almost always very unsatisfactory; and to outline the ovary and ascertain its changes in size and shape, and change of sensibility, is an extremely difficult thing to do. In very favorable cases, however, we sometimes can make a physical ex-

amination, which will enable us to determine whether the ovaries are diseased or not. This is the case when we find the ovaries displaced, somewhat in the cul-de-sac of Douglas, so that we can reach them with our fingers. We can do this with much more ease in patients who are not fleshy, and in whom the abdominal walls are not rigid. You will include them between your hands, one hand above the pelvis, and one or more fingers of the other within, either in the rectum or vagina. In cases where the local symptoms are the most prominent, you will find more tenderness in the ovary than where there is not much pain in the ovarian region. There will be sensitiveness of the organ either through the vagina or abdominal walls, and there will be greater changes in bulk and shape in those cases where local pains are considerable.

I should have said before this, that the different cases of ovarian inflammation do not show all of the symptoms which I have given as being present. In some instances, the local symptoms are scarcely noticeable, while the reflex symptoms may be serious. In other instances, there are no reflex symptoms that show themselves to any extent. So we cannot look for all the different kinds of symptoms I have enumerated in every case. They are shown in different ways. You will sometimes find it impossible to ascertain, by physical examination, that there is a change in the structure of the ovary indicating chronic inflammation; then the history of the case will greatly aid you in coming to such a conclusion.

If you meet with a case where the patient has been subjected to frequent attacks of acute inflammation of the pelvic organs and of the lower portion of the abdominal cavity, where the functions of the organs have been vitiated in consequence of these repeated attacks, you can almost with certainty say that the reason why these functional symptoms have come on, is because the ovary was affected and had become diseased.

There is another phase of the diagnosis which is of very great importance—viz: the connection of the reflex symp-

toms with the inflammation of the ovary. A patient comes to us with symptoms of epilepsy; it is an important matter to decide what connection there is between the diseased ovary and the epileptic convulsions, for the reason that the treatment will greatly depend upon that decision. If we can establish a connection between the two, we shall be obliged to treat the patient surgically; and if we cannot, our measures of treatment will be less energetic. If a patient should commence to have epileptic convulsions before the menstrual flow is established, or when the patient is six years of age, for instance, and continue through life (and such cases have been known in both sexes), it would hardly be right to say that the epilepsy was produced by ovarian inflammation. On the other hand, if it had occurred after the menstrual flow had been established (after the girl was 15, 16, or 20 years of age), and had been preceded by acute or chronic ovarian disease, the connection would be reasonable.

There may be, and usually is, a correspondence as to the time of recurrence of the epileptic attacks and the menstrual flow. If epileptic convulsions occur *at* or *just before* the time of menstruation, and not at any other time, in connection with other definite evidence of inflammation of the ovary, it would be plausible for us to conclude that the attacks were dependent upon the ovarian inflammation. I think if these paroxysms occur *periodically*, at any time during the month, that the periodical recurrence of them would be some evidence of their dependence upon menstrual deviations Suppose, for instance, in the middle of every menstrual month a patient should have an attack of epilepsy—the attack being as regular as the monthly courses, between the times of menstruation—it may be inferred that it depends upon the periodical influence associated with the functions of the ovary. There is no positive way, so far as I know, of diagnosticating the exact connection between the conditions of the ovary and epilepsy. The history of the patient's family would be worth studying, as to whether

any of the other members had had epilepsy or other serious nervous disorder.

Now, I cannot say as much in the way of assisting you to diagnosticate the relation between inflammation of the ovary and mania. There is no way of deciding positively the connection between ovarian inflammation and mania, or a diseased mind. I am not so sure of the intimate relation between mania and disease of the ovaries as I am of the connection between epilepsy and ovaritis. I do not think that it can be established with the same degree of certainty; yet I have no doubt that some patients *do* suffer from mental disease as a consequence of ovarian inflammation.

An important item in connection with chronic ovaritis is the prognosis. *The prognosis* will have a great effect upon our treatment, as a matter of course. Will such patients get well spontaneously? I suppose such a thing happens, but it is so rare that the question should ordinarily be answered in the negative, with the exception that patients may get well if they survive the change of life. They do not always do so, but are likely to do so. When a patient has only local and functional symptoms, I think there ought to be a good chance of curing her by ordinary methods of treatment in a great many instances. I wish to be put on record as saying, in reference to these cases, that many of them can be successfully treated by ordinary methods, and do not require to have the ovaries removed in order to relieve them. Even in those cases where the patient is rendered an invalid by having nervous depression and all the painful symptoms I have mentioned, lasting for a long time, the prognosis is not desperate, and we can expect to do much towards curing them by appropriate treatment: but when ovarian epilepsy has become an established condition of the body, the paroxysms recurring month after month and year after year, I should not try to cure them in any other way than to remove the offending organs. The prognosis with any other treatment should be regarded as desperate. If these attacks are not arrested, the patient becomes demented in consequence of the severe effects of the convulsions upon the

brain; and, in many instances, after they have lasted for a long time, it is exceedingly doubtful whether removal of the ovaries will cure them. We meet with cases in which the ovaries have been removed, and the patient does not get well, often probably from the fact that organic lesions of the nervous centres have been caused by long protracted functional disorder.

The same thing may be said of the mental disorders of these patients. The longer they are allowed to continue, the more desperate the case becomes. If it has lasted for a considerable length of time, nothing but a doubtful prognosis can be given under any circumstances. Many epileptic patients *do* get well, by the operation of removal of the ovaries, after the disease has been in existence for a long time. We are not, therefore, to suppose that cases are not curable simply from the fact that they have lasted a long time. Oöphorectomy seldom leaves the patient worse.

The first case I ever had of this kind, in which the patient was cured by removal of both ovaries, was one in which the epileptic attacks continued until she was 40 years of age, the paroxysms commencing from the time of the establishment of the menstrual function. The convulsions were so severe that she was not expected to live by her friends and relatives, and in this condition developed an ovarian tumor. The propriety of ovariotomy was considered doubtful, as the patient's friends supposed she would die from the effects of epilepsy in a short time, but was finally adopted. The ovarian tumor was removed, and the other ovary being diseased, was also removed. The night after the operation, she had an epileptic paroxysm, which was one of the most severe she had ever had. Since that time, now 15 or 18 years ago, she has not had an epileptic attack, and remains well to-day. While the prognosis ought not to be regarded as *desperate*, simply because the epilepsy has continued for a long period of time, it should be considered as *doubtful*. I recognize this view of the case, for the reason that where a woman is demented, or has been subject to epilepsy for many years, and cannot be cured by ordinary measures, the ovaries are of

little importance, and it does not detract from her usefulness to have them removed, and there is a possibility of curing her. We should, therefore, not hesitate to remove these organs, or to do anything else which is practicable and calculated to cure the patient.

ART. III.—The Value of Rest in the Treatment of Pulmonary Consumption.

By THOMAS J. MAYS, M. D., of Philadelphia, Pa.,

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While I do not believe in the idea of treating all diseases in accordance with a stereotyped plan, there are still certain underlying general principles which are susceptible of universal adaptation. This is especially true of non-medicinal treatment. No one would consider it wise to give the same drug in every case of typhoid fever, because drug treatment applies more especially to the finer morbid variations of the disease; but it would be regarded as the acme of foolishness if a typhoid fever patient were urged to get up and walk about so as to gain strength. The same is true of fractures. Every surgeon believes in rest—that is, in keeping the ends of the broken bone quiet and in apposition, so as to give the best chance for union; yet there are hardly ten surgeons in existence who treat the same fractures alike, so far as details are concerned. This diversity in particulars is not accounted for wholly on the score of subjective differences on the part of surgeons, but principally because the demands of every case vary greatly in detail.

The same rule applies in the treatment of pulmonary consumption. No two cases of this disease are alike in every respect, although there are certain broad principles which must obtain in the scientific treatment of every case.

The first and most important of these is rest. The consumptive is in a continuous state of chronic exhaustion.

His disease is not of a local, but of a constitutional nature. The heart, stomach, intestines, and other organs, are also involved in the disorder. He is always on the verge of physiological bankruptcy. A short walk, a small amount of physical exercise, saps his strength to a serious degree; yet, in spite of this, he is dominated by the pernicious belief which is common to the rest of mankind, that he must take exercise in the open air in order to get well. He fails to realize that, with him, it is wholly a question of constitutional resistance—that when he is weak the disease is strong and advances; and when he is strong, the disease is weak and recedes; that the force which he expends in walking and working extracts so much from the common fund of force, and allows so much less for the body to cope against the disease, and to perform the other necessary functions. Not only this, but the stomach and intestines—the avenues through which the greater part of force for daily use in the shape of food is taken into the body, partake of the general weakness and refuse to perform their function. Physical exercise is, therefore, a double injury to the body: it weakens it by wasting its forces, and disables it from taking in a new supply.

I must confess that during the last few years my views on the treatment of pulmonary consumption have undergone a radical change. In consonance with the prevailing opinion, I was in the habit of believing that the chief aim of the physician's duty to his consumptive patient was to make him well enough to go out walking, and, after that, he would have a fair chance of getting well. I often wondered, however, why it was that, in many instances, patients did well so long as they were kept quiet, either in bed or sitting up; and so soon as they were judged able enough to take exercise and engaged in it, there was either a halt in their improvement, or they suffered a relapse.

After considerable study and investigation, I found that in pulmonary consumption there is, probably, always a serious implication of the nervous system, and especially of the pneumogastric nerves, and that the lung disease is not

an independent disorder, but merely a local manifestation of the underlying diseased state of the nervous system. This view I first advocated, although imperfectly, in two lectures,* entitled, *Pulmonary Consumption Considered as a Neurosis*, which I delivered in the Philadelphia Polyclinic evening course about one year ago. I have since then studied the same question from every standpoint available to me, the results of which will be published in book form at an early date; and I only wish to premise here that my earlier views have been entirely confirmed by these later researches.

The nervous system, then, being largely involved in this disease, it becomes practically plain why rest is of such paramount importance in its treatment; for nothing is more firmly established than the value of rest in the therapeutics of nervous diseases.

In accordance with this view, I have, of late, treated my consumptive patients by keeping them quiet; and I have no reason to regret the practice. Those who become tired on the slightest exertion, or those who are always tired, no matter what they do, I order to bed, or, at least, in the horizontal position, and keep them there constantly, until their condition warrants a change of posture. This plan of treatment does not imply confinement to the room, or even to the house; but, if able, the patients are allowed to walk out and sit quietly in the open air, or, if too weak, they are carried out, and permitted to remain there during the greater part of the day—being, of course, warmly and suitably clad and well-protected from any unfriendly draughts of wind. Indeed, this method, which insures such perfect quiet to both the nervous and the muscular systems, is the secret of much of the successful treatment obtained in mountain resorts which are devoted to the care of consumptives. Either by instinct, or by ratiocination, those who have charge of these institutions have learned to place more reliance on

* *Therapeutic Gazette*, November and December, 1888. See also *Medical News*, May 25th, 1889; and *Medical Times and Register*, August 10th, 1889; and *Journal of Inebriety* April, 1889.

rest than on the dry and rarified atmosphere. This sentiment is fully voiced by Dr. Volland, of Davos, the most famous mountain resort for consumptives in the world, when he says, on page 18 of his work, entitled, *Die Behandlung der Lungenschwindsucht im Hochgebirge*, that rest in the open air is the first duty of the patient. If able, he is allowed to sit out-of-doors; and if not, he is confined to bed in a well-ventilated chamber.

Of course, it is not my intention to advocate rest in the treatment of this disease to the exclusion of all other measures; but merely to show that it is a point of greater importance than anything else. In addition, antipyretics must be given, the appetite must be improved, wholesome and nutritious food must be administered; and oxygen, compressed air, pulmonary gymnastics, flax-seed meal poultices, cod-liver oil, hypophosphates, etc., may be employed with great advantage. The practical results which I have obtained from the plan of treatment so imperfectly outlined here, lead me to believe that more can be gained from its enforcement than from anything else, and I sincerely recommend it as such to my brother practitioners.

1829 *Spruce Street.*

ART. IV.—Antipyretics in High Fever.*

By H. P. WENZEL, M. D., Milwaukee, Wis.

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I.—FEVER.

Not many years ago, it was the universal custom to administer the so-called antipyretics in all cases of pyrexia, irrespective of the cause or origin of the high fever. The prevailing notion was to reduce the fever by the plentiful use of antithermics, even in dangerous doses, leaving their

*Read before the Rock River Medical Society, December 3rd, 1889, and published by unanimous request of the Society.

after-effects entirely out of consideration. The method was carried out with a persistence worthy a better cause; it was pushed into the various diseases indiscriminately, and the surgical and puerperal septic diseases fared no better. What was the result? Myriads of lives were wantonly sacrificed on the altar of ignorance.

It was, perhaps, excusable, half a century ago, to fire the antypyretic blunderbuss, loaded to the muzzle, at any pyrexia —at the heat-generating centre, to *impress* it many times daily for days or weeks; but only too frequently the *impression* led to the patient's exodus before a correct diagnosis had even been made.

Nervous irritation plays an important rôle in body temperature elevation, stimulating the heat-generating centre, paralyzing the heat-radiating machinery—locking up the skin emunctories, and as it were, enclosing the generated heat in a retainer. The temperature may rise to 99° F. or to 102° F.; this is pyrexia. Let the thermometer register 104° F. or more, this is high fever; when it passes 106° F., it is considered dangerous. Yet scarlatina patients with temperature of 108° F., have recovered; and cases of insolation, with temperature 110° of F., treated with cold baths, recovered after antipyretic drugs had failed. According to the "good old time" routine treatment, the antipyretic shot-gun must be trained on the mark—*pyrexia*—and if the first shot fail, more and larger ones will follow. Very frequently, too the marksman is blind—the disease is not located, the cause not sought or is unknown. Under these circumstances, will medication be successful to open the doors and windows—the emunctories—to let out the heat? Will it open the tegumentary pores, restore physiological equilibrium, or even relieve the irritation? Truthfully, our answer must be an emphatic, No! in most cases.

Most diseases are cyclical. And how much better are the results of the antipyretic treatment over the expectant? Antipyretics *act more favorably when combined with calmatives*, as potassium bromide *to reduce nerve tension.* Antipyretics exhibited in the self-limited diseases, when nature opens the

flood-gates at their acme—hastily drawn conclusions will give them the praise, while Dame Nature is left in the cold. The refrain is: the temperature has fallen! Antipyretics are given days before, and continued without greatly impressing the pyrexia; but the acme reached, so much of the cycle is completed. Pyrexia is extinguished now because this or that drug was exhibited about the time of falling of temperature; and whether deserved or not, it—the drug—is lauded for what it is not wholly entitled to. Further, too frequently the only object in view appears to be temperature reduction at any cost, and without weighing of consequences.

I have never considered high fever *per se* very dangerous. The danger depends more upon the quality and quantity of irritation in or upon the system. I believe the pyrexia is more beneficial than injurious to the system. Fire, or if you please, heat, purifies. Does this high heat not destroy effete or foreign matter in the body? The various causal factors of disease—bacteria, bacilli, cocci—can only endure a temperature of 100°F. to 102° F or but little higher; now any temperature above that *will retard their growth, stop their pullulation, and render them inert.* Thus, successive pyrexial exacerbations are nature's battles against the microscopical invaders, whose army is decimated by each attack, and finally annihilated. And what effect have these antipyretics on the minute, but energetic, foe within the body? Practically none. The human organism is no test tube. And any antipyretic exhibited in sufficient doses to *impress* or *poison* these germs within the body, will certainly not fail to be disastrous to the patient.

Formerly the surgeon gave antipyretics and awaited developments. He avoided haste; he did not wish to harm the patient. He waited until "it was ripe;" he was sure then. If the cause was not easily found, the effect was always apparent; the result clear. Mortuary statistics show that.

To-day, thanks to *asepsis* and *cleanliness*, he is bold, brave, active. The malady is located; its cause sought. The high fever is not tickled with antipyretics—the only anti-

thermic used is *the knife, and an antiseptic solution*. By these, the cause of the fever is overcome, pyrexia vanishes, the temperature drops to normal. Science, mixed with common sense, and spiced with knowledge and ability, has thus saved thousands of lives that would have miserably perished under the old *régime* of antipyretics, and "masterly inactivity." Statistics show results here too; they are very favorable, and improve with age.

Go back to the time of Semmelweiss, and investigate how the septic puerperal diseases fared. The practice of that time was to reduce the fever, and weaken the constitution by the antipyretics then in use. Pyrexial reduction was relied on, but the pus, detritus, etc., were peacefully left in full possession of the uterus, or other parts of the system. Look at the result—hundreds of thousands of mothers were sacrificed to swift disease and sudden death, because, then, "meddlesome midwifery is bad." The Doctor then felt his duty done after he had bombarded the disease with drugs. What an apology! Will it do to-day? Not much!

To-day, when nature hangs out her red-lantern danger signal in a case of puerperal sepsis, antipyretics are ignored. The "anti fever" blunderbuss is no longer used to *coerce* fever. Quickly the puerpera is examined, the cause of the pyrexia—generally pus, placental detritus, decomposing blood-clot, etc.—is located, and generally found in the uterus or its adnexa. Remove this decomposing, putrid, rot ing mass, by irrigation with a hot antiseptic solution—carbolic acid 3 per cent. or sublimate ½ to 1 per cent.—and, if necessary, curette. In fine, turn out the stinking mass, and you will need no antipyretics. Keep the parts clean and pure, and there will be no more high fever.

In two cases of multipara under my care (delivered by midwives before I was called in), temperature in one hour was 106° F. Irrigation with a gallon of 3 per cent. carbolic acid solution, hot, cleared the uterus of a mass of placental detritus; within an hour, temperature was 99° F. Eight irrigations were required before the temperature remained normal. In another case, with pyrexia 105° F., irrigation with

a gallon of hot (125°) sublimate solution, (½ per cent.) brought away about a pint of very fetid pus and placental remains; within an hour, temperature was 99.8°F. Ten times I irrigated the uterine cavity. These three cases were well fed, received no antipyretics, and are both well to-day. This is my method of treating such cases. A Kelley antiseptic catheter, properly used with the necessary belongings, is far more valuable than any antipyretic. Formerly, these unfortunates were treated, *au hazard*, and recovery was the exception; to-day, they are treated rationally, and recovery is the rule. Whenever pus, pent-up in the system, is the cause of pyrexia, its proper removal, with the necessary antiseptic precautions, will reduce the pyrexia; antipyretics will not. Here they do harm.

In children's diseases, especially, antipyretics must be used with great care, at long intervals, in small doses. A spoonful of ol. ricini is often more valuable, and an emetic more useful. An irritation quickly produces high fever, which as quickly subsides. A child's constitution is always at a high tension, and quickly impressed. Allay the irritation, and nine times in ten the fever drops at once. My practice has been for fifteen years to use antipyretics very sparingly, relying more on potassium bromide careful supervision of the diet and baths; and I see no change required in treating the little ones. *Common sense is easier to take than nasty antipyretics*, and healthier for the children.

Often antipyretics, even in large doses, fail to reduce pyrexia In a recent very severe attack of acute articular rheumatism, I took salicylate of soda until deaf, and antifebrin until near collapse, without reducing pain or reducing fever. Rochelle salts benefitted me more than both. In typhoid fever, antipyretics have done more harm than good. In the exanthemata they will reduce the temperature when the eruption "has broken out," and Mother Nature has frightened pyrexia with her *vis medicatrix naturæ*. In cholera or cholera morbus, they are utterly useless; and so on *ad nauseam*. Antipyretics are useful, but not a panacea. Pro-

perly used, they do some good; used hap-hazard, they are bound to disappoint—to do harm. They are not specifics for fever, and fail frequently.

II. Antipyretics—Many preparations *are indirectly antipyretics*. The most valuable antithermics from the vegetable kingdom are derived from the cinchona family. These alkaloids are *most valuable in malarial intoxication*; are valuable tonics in small doses, and have a limited power in pyrexial reduction—even in large and dangerous doses. Their principal action is on the protoplasm—the cell elements. Salicin, and other similar preparations, are very feeble antithermics unless exhibited in collossal doses.

The antipyretics, so-called, used at the present time, are derived from various fractional distillations of crude petroleum and coal tar, or are the evolution of dye works—hence, belong to the aniline (aromatic) group. Their effects, when exhibited, are similar on the economy. Their dosage ranges from three to fifteen grains. They are used as antipyretics, analgesics, etc. Being nearly tasteless, they are easily taken. Some consider them veritable arcana (?)! They reduce temperature; the reduction holds good a few hours; but pyrexia rises rapidly when their effect is exhausted. Sometimes they produce rise of temperature instead of lowering pyrexia. It has happened in my own experience, after exhibiting antipyrin in *ten-grain doses to two adult females, to see the temperature rise from* 102° *F. to* 106° *F., with intense redness of the skin, extremely profuse sweating, pupillary dilatation, tumultuous heart action, dyspnœa, lasting several hours, followed by collapse*; ultimately they recovered. Other observers report similar experiences. I have also seen *wild delirium in a strong adult female* follow a five-grain dose of antifebrin, which was taken for supra-orbital neuralgia.

The aniloid series—the results or products of fractional distillation—used as antipyretics, act as destructive agents on the blood. The use of antipyrin has been followed by albuminuria. This series causes pyrexial reduction at the expense of the blood. Anæmia, etc., follow in their wake.

While they are creditable to the energy of the chemist and experimental therapeutists, they should be cautiously used, only when absolutely required. The late Therapeutical Congress declared them as poisons.

One of the latest comers, is *pyrodine*. It has been extolled as an antipyretic. Its action was almost continuously followed by bad results in the hands of some. It causes anæmia and blood disintegration. I translate from *Le Bulletin Médical*, of November 3rd, 1889, page 1345, as follows, from the session of the "Gesellshaft für Innere Medicin," Berlin, October 28, 1889:

Reuvers reported on pyrodine in doses of .30 ctgm. (4½ grains). Anæmia was caused, lasting for a week; in doses of .50 ctgm. (7½ grains), continued four days, icterus appeared in some cases. Examining the blood of a girl, aged 18 years, before and after taking .20 ctgm. (3 grains) of the drug, he found a diminution of 43 per cent. in hæmaglobulin; the red corpuscles were diminished by half. On the seventh day, the blood contained only 35 per cent. hæmaglobulin, while the red disks lost their property to form rouleaux. Guttmann and Fraenkel had had a similar experience.

Conclusions.—1. High fever, *per se*, is not inimical to life, but destructive to foreign organisms in the system.

2. High fever caused by pus, sanies, or detritus, etc., cannot be influenced by antipyretics; but promptly yields as soon as the pus, etc., is removed, and the parts are kept aseptic afterwards.

3. The pyrexia of cyclical or self-limited diseases is but little influenced by antipyretics.

4. In cholera, cholera morbus, and in all septic conditions of the alimentary tract, antipyretics are useless. *Antiseptics* are required notwithstanding the high fever. Typhoid fever is no exception to this rule.

5. In the exanthemata, pyrexia falls when the eruption appears irrespective of administered antipyretics, and in non-surgical acute brain diseases, they are worse than useless.

6. In the diseases of infancy and childhood, careful attention, supervision of the diet, baths, and an *aseptic condition of the digestive tube*—in other words, common sense treatment—will be followed by better results, than with the unlimited use of antipyretics.

7. Antipyretics frequently fail to reduce pyrexia; their use has in many instances caused increased pyrexia, collapse, and in some cases, death.

8. There is no *pure* antipyretic, all being also endowed with anodyne, analgesic, tonic, and other properties; hence

9. It is impossible to estimate their antipyretic power or value.

10. Many remedies, although not classed generally as antipyretics, reduce temperature in fever indirectly.

11. Quinine causes protoplasmic shrinking.

12. The aniline derivatives reduce pyrexia at the expense of the blood.

13. The expectant plan of treatment plus sponge baths, is followed by better results than the unlimited uses of antipyretics, and the damage to the system much less.

14. Enterprising chemists invent drugs, and dictate to the medical profession for what they shall be used; the medical profession should awake to the importance of its dignity.

Art. V—The Microscope in Medicine—(3) What is the Physician to do with It?

By C. M. BLACKFORD, M. D., of New York. N. Y.

In the two preceding articles under this title, the mode of preparing specimens for microscopical examination was given, and also a brief *resumé* of the results that have followed such examinations. It is now intended to give more detailed notice to the work that every microscopist, and even every physician, should be expected to perform with this instrument.

This work I will divide into two heads—diagnostic and

prophylactic. Under the head of diagnostic work, I include *post-mortem* examinations and medico-legal investigations, as well as the diagnosis of tumors or diseases, which, like tuberculosis or Bright's diseases, have recognizable *ante-mortem* signs. By prophylactic investigations, I mean the examination of air, water, milk, and foodstuffs, for the purpose of preventing disease, or limiting its spread.

As a rule, microscopic examination is unnecessary in *post-mortem* investigations. When, for scientific or other reasons, such an examination is desirable, the portion most generally to be examined is the nervous system, and a few words may be of use concerning the preparation of the specimen.

The brain, or any other portion of the nervous system, should be removed from the cadaver as soon as possible, and put at once into preserving fluids. The usual mode of extracting the brain is to slit open the corpus callosum, lay aside the hemispheres, make a longitudinal and transverse incision, and extract the brain in pieces. It is difficult to do this without tearing the tissue; and, after hardening, the pieces do not fit accurately enough to locate lesions with precision.

Meynert's method, however, is preferable. Resting the brain on the hemispheres, and lifting up the cerebellum, cut the pia and vessels above the corpora quadrigemina, and around the crura and temporal lobes, until the middle cerebral arteries are reached. Follow these arteries into the Sylvian fissures, and thence to the termination of the posterior branch on each side. Now, gently separate the temporal convolutions from the neighboring convolutions, and from the base, lift the apices of the temporal lobes and resting the knife flat on the base, cut through the junction of these lobes with the base, until the descending cornu is opened. Insert the knife into the descending cornu, and cut outward and backward to the extremity of the posterior horn, being careful not to cut the posterior pillars of the fornix. This incision severs the junction of the occipital and temporal convolutions. Now, fold back the temporal lobes

and expose the island of Reil. Having done that, make a slightly curved incision, uniting the anterior sulci of the islands, deep enough to pass through the anterior horns of the ventricle. Now, putting the knife into the ventricle behind, and passing beneath the optic thalami, the internal capsules, anterior pillars of the fornix and septum lucidum are cut from behind forward. As this incision is being made, gradually roll the cerebellum forward to lift the basal ganglia from the corpus callosum. This cuts the brain into two great parts—the islands, ganglia, internal capsules, crura, pons, medulla, and cerebellum, making one; the corpus callosum, fornix, and cornu ammonis, making the other. In this way lesions may be well shown and located with the greatest accuracy.*

In the choice of a hardening fluid, something depends on the part which one especially desires to examine. Muller's fluid preserves the nerve fibres and neuroglia excellently; whereas, corrosive sublimate or alcohol preserves the ganglion cells better than does the bichromate solution, however, as all the more important staining methods depend on this latter, it is generally to be preferred. If it be used, a piece of camphor should be put in to prevent the development of micro-organisms. After thorough hardening in Muller's fluid, and then in strong alcohol, sections may be stained in osmic acids in strengths varying from one-tenth to one per cent. This stains the medullary portion of the nerves a dark brown or black, and isolates the fibres very well.

A new mode is that by acid fuchsin and picric acid. To use this, take the specimen from the alcohol in which it was placed from the Muller's fluid, and stain deeply with hæmatoxylin to color the nuclei. The solution—the formula of which was given in a previous paper, under the name of Delafield's hæmatoxylin—is to be recommended for this pur-

* I am indebted for this description to an article entitled "Laboratory Notes of Technical Methods for the Nervous System," by Ira Van Gieson, M. D., First Assistant in the Alumni Laboratory of the College of Physicians and Surgeons of New York, in the *N. Y. Medical Journal* of July 20, 1889.

pose. Then make a saturated solution of picric acid in water, and to 100 c. c. of this solution add a few drops of an aqueous solution of acid fuchsin until the whole assumes a garnet color. Allow the section to stay in this from three to five minutes; then wash in water, dehydrate in alcohol, clear in oil of origanium and mount in balsam. This stains the ganglion cells, neuroglia, blood vessels, and sclerotic areas garnet; the axis cylinder red, and the myelin yellow.* It is quite simple and very effective. The cord may be hardened in Muller's fluid, and then immersed in alcohol. It is well to leave the dura attached, and at intervals of, say, half an inch, make incisions which nearly divide the cord. This enables it to be coiled up in the jar of preserving fluid, and the dura keeps the parts in proper serial order. It may be stained in the same manner as that described for the brain. For peripheral nerves, osmic acid is a useful stain, but the specimen must be mounted in glycerin.

Frisch recommends this stain. Wash the section in water, and then place it in a one-half per cent. salt solution for twenty-four hours. Then wash for ten minutes in ten per cent. formic acid, and then for from one-half to three hours in a one per cent. solution of chloride of gold and sodium, carefully protecting the section from light during this portion of the process. Wash it in water and then lay it in ten per cent. formic acid for twenty-four hours. This is an excellent stain for nerves; but I must recommend it by hearsay only, as I have never used it.

The microscopic examination of the fluids of the body is, at times, of great value. The urine has been an object of microscopic interest for many years; and as nearly every text-book on practice of medicine contains directions as to procedure, it is unnecessary to repeat them here. In cases of suspected tuberculosis, the sputum should be examined for the bacilli which, according to Ehrlich, are always present in tubercular patients.

The principle on which these little creatures are stained, is the tenacity with which they hold to certain coloring

* Dr. Ira Van Gieson.

agents under circumstances that decolorize everything else. Of course, when staining a section, all the cells and bacteria are equally stained; but, by adding a few drops of carbolic acid or aniline oil to the staining agent, the color is fixed in the tubercle bacilli, and can be removed from everything else. A simple and effective method is that of Ziel. It is, briefly stated, as follows: Take the sputum from the vessel that contains it, with a sterilized platinum needle and spread a thin layer of it on a cover-glass. Allow it to dry, and then pass it through the flame of a spirit-lamp to effectually kill the bacilli. Now, pour carbolic fuchsin on the dried sputum. This carbolic fuchsin is made by adding to ninety parts of a five per cent. solution of carbolic acid ten parts of a saturated alcoholic solution of fuchsin. This solution should have been prepared in advance. Allow the cover-glass to stay in this for from three to five minutes, and then wash off the excess of the coloring agent with distilled water. The sputum is now uniformly red—bacteria and all being stained; and next, all must be decolorized except the bacteria. This is effected by a ten per cent. solution of sulphuric acid. Put the cover-glass in the acid for about a quarter of an hour, and then in alcohol, until all the color disappears; then dry, and mount in balsam. In using this method, one must be careful not to over-stain, or rather not to decolorize imperfectly, nor, on the other hand, to allow the specimen to stay in the acid too long, as the bacilli will also be decolorized. If the happy mean be struck, the red bacilli will be plainly visible against a colorless background. It is hardly probable that the first attempt will succeed; but with patience one will get good results in the end. The usual error is allowing the sputum to remain in the acid too long, and so losing all the color.

The Koch-Ehrlich method is similar, except that aniline oil is used instead of carbolic acid. To half a test-tube of distilled water, add five or six drops of aniline oil, filter, and add gentian violet to opacity. Stain deeply with this, decolorize with twenty-five per cent. nitric acid, and wash in alcohol until all color is discharged. As but little of the

material is used at a time, it may be well to stain a specimen by each of these methods.

The ordinary bacteria, the pathogenic as well as the harmless varieties, are readily stained by any of the aniline dyes; but preferably by fuchsin or gentian violet. In using these, proceed as for tubercle; but the discolorizing processes are unnecessary, as they are only to separate the tubercle from other species. Modification of the processes above mentioned are used for staining bacteria in the tissues; but one of the best for this purpose, although it is now rather old, is that of Gram. In this, use the aniline oil and gentian violet-staining solution of Ehrlich, as given above, into which transfer the section from pure alcohol. Stain deeply, and then transfer to a solution composed of one part of iodine, two parts of potassium iodide, and one hundred parts of water. Leave it in this for a few minutes, and then transfer to absolute alcohol, which discharges the color of the sections, and leaves the bacteria as bluish-black objects on a colorless field. A faint trace of color is apt to be left in the nuclei; but the bacteria being so much smaller than the nuclei, this is not likely to create confusion. This is very satisfactory, and shows the site of these minute creatures in the tissues excellently.

For the diagnosis of tumors, the directions given in the first paper of this series will suffice. As a rule, these require no special preparation further than that needed for any solid body.

The second head considered in this paper has been termed prophylactic, and the definition of the term has been given. The day is not far behind us when the potability of water was determined by its chemical analysis, but now we know that chemistry is unable to show all the hidden dangers that may lurk in the clearest and most sparkling water or the clearest and firmest ice. A single instance will show the force of this: In January, February and March of 1885, there was a case of typhoid fever on a hillside sloping toward a water supply of the town of Plymouth, Pa. The dejections were thrown out on the snow, under which

the ground was frozen. On March 25th, a thaw occurred, and the water ran off, not soaking into the frozen earth. An epidemic of typhoid fever broke out in the town; but only those who derived their water from this source were affected. The explanation is easy. The cold rendered the bacilli torpid, but on the return of warm weather, they resumed their activity, for a freezing temperature does not kill them. No strictly chemical examination would have shown the danger in this case, but the microscope would have done so.

In case one wishes to examine the water, cultures must be made with great caution, and if necessary, the results so obtained be confirmed by experiments on animals. Into a carefully sterilized gelatine culture-tube, put a drop of the suspected water, and wait a day or two for the bacteria to multiply. Of course, the tube should be plugged with sterilized cotton, or the result would be useless; for the force of such an experiment depends upon the utmost freedom from sources of error.

If air is to be examined, some contrivance must be devised whereby a quantity of air may be thrown on a culture plate, or be filtered through cotton, this cotton being then shaken over a culture plate.

There are many who will say that these examinations are unnecessary, or even foolish. To these I say, that since these micro-organisms, if not, as I believe, the cause, are the invariable accompaniments of certain diseases, no precaution is unnecessary which will enable us as physicians to avert disease by destroying these bacteria. As antisepsis has eliminated septicæmia, tetanus and erysipelas from the list of surgical diseases, so similar precautions may eliminate many of our epidemic diseases; and medical men, instead of rejecting or combating the new light recently shed on the dark subject of epidemic diseases, should take all advantage of it in their ceaseless struggle with the "ills that flesh is heir to."

ART. VI.—**Fracture of the Fore-Arm** *

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I will limit myself, principally, to the plan of treatment which I believe best adapted to the majority of cases, and which has given the most satisfactory results in the wards of Chambers' Street Hospital, New York.

Fractures of the fore-arm, like fractures of other long bones, may be complete or incomplete, simple, compound, comminuted, or complicated. The diagnosis is usually easy. Deformity, mobility and crepitus, when co-existing, are the most reliable signs, and may be considered pathognomonic of fracture.

The bones of the fore-arm are more frequently broken than any others of the body. One or both of the bones may be broken, either by direct, or more frequently by indirect violence. The seat of fracture is usually through the shaft.

Fractures of the head and neck of the radius, are of rare occurrence, especially the former—never having been recognized during life. The latter is rarely met with, except when complicated with other lesions.

Fractures of the lower extremity of the radius consist of two varieties, viz: Colle's and Barton's fractures. Colle's fracture is by far the more common. It is a transverse or a slightly oblique fracture, situated from a quarter to an inch and a half above the articular extremity of the radius. On the other hand, Barton's fracture is a very oblique fracture, and extends from the articulation upwards and backwards, separating and displacing the whole, or a portion of the posterior margin of the articular surface. The cause of these injuries is almost invariably a fall upon the palm of the hand.

Treatment.—If the fracture exists along the shaft of the ulna or radius, prepare two splints of thin board; pad

* Read before the Mobile County Medical Society.

them well with some soft material—thicker in the centre than elsewhere. An assistant must now grasp with one hand the patient's hand, and with the other, the arm above the elbow; hold them in a position half way between supination and pronation, always making steady extension, while the surgeon makes a careful reposition of the fragment. Then the splints are applied, the posterior one extending from within one inch of the olecranon, to the ends of the fingers, and the anterior extending from the elbow to the carpus. The splints are retained in position by two or three bands of adhesive plaster, and fastened by a bandage made tight enough to prevent slipping and prevent gangrene. The fore-arm is carried in a sling. Recovery takes place in about four weeks.

The treatment of Colle's and Barton's fracture consists in effecting reduction by means of extension and manipulation; and in fixing the limb by the use of splints and compresses.

The method followed at the "House of Relief," is the following: As soon as the patient enters the hospital reduction is made; and if there exists much swelling and inflammation, the fracture is put in two small splints; the palmar splint extending as far as the tips of the fingers. After the inflammation subsides, roll two pieces of a bandage, two inches and a half wide, into a compress about as thick as the little finger. If reduction be not perfect, repeat it, and place one along the inner aspect of the ulna, extending from the anterior margin of the carpus upward; the other, exactly parallel with this along the outer border of the radius, over its styloid process. These are secured by strips of adhesive plaster. A pasteboard splint is then applied, along to the back of the hand, extending from the bases of the fingers to near the elbow. The arm is also carried in a sling.

61 *Government Street.*

[The subject was then fully discussed by Drs. S. S. Scales, Geo. A. Ketchum, Cable Toxey, Goronway Owens, Rhett Goode, S. Olliphant, and W. Sardere.]

Art. VII.—Treatment of the Insane. Progress of Opinion as to the Nature of Insanity.

By JOSEPH JONES, M. D., of New Orleans, Louisiana.

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We will use the term insanity in a generic sense as applied to certain morbid mental conditions, produced by defect or disease of the brain, and as synonymous with mental disease, alienation, derangement or aberration, madness, unsoundness of mind.

There are many diseases of the general system productive of disturbance of the mental faculties, which, either on account of their transient nature, from their being associated with the course of a particular disease, or from their slight intensity, are not included under the head of insanity proper, which may be defined as a *chronic disease of the brain inducing chronic disordered mental symptoms.*

The great fact to be impressed upon the medical profession, and the public generally, is that *insanity is the result of disease of the brain, and is not a mere immaterial disorder of the intellect;* the brain is the organ through which mental phenomena are manifested; and, therefore, it is impossible to conceive of an insane mind in a healthy brain.

On this basis, insanity has been defined "as consisting in morbid conditions of the brain, the results of defective formation or altered nutrition of its substances, induced by local or general morbid processes, and characterized especially by non-development, obliteration, impairment or perversion of one or more of its physical functions."

In adopting this view, the medical profession of the nineteenth century have returned to the philosophical conclusions formulated by Hippocrates more than two thousand years ago; and the legislators of our day have wisely enacted that certificates of insanity shall be given by medical men, and by medical men alone, and to their care shall be committed those who are insane.

Progress of Opinion as to the Nature of Insanity.—In ancient

times, and during long ages, up to the writings of Hippocrates, 460, B. C., the civil and social status of the insane, and their treatment, were determined by religious and superstitious hypotheses; they were regarded as afflicted by the gods or possessed by demons.

Hippocrates propounded certain truths, which formed the basis of the science of psychiatry. He taught that the brain was the organ of the mind, and that it was subject to physical laws and diseases like other organs, and that insanity followed abnormal conditions of the brain. He described disorders of the mind corresponding with mania, melancholia and dementia; denied the important bearings of heredity, and indicated the value of a study of temperaments in the treatment of cases.

The teachings of the "Father of Medicine," based upon scientific observation, became the accepted medical doctrine, which was perfected and enlarged by such writers as Aretæus, (60 A D.), Cælius Aurelianus (100 A. D.), Galen (160 A. D.), and others.

Twenty-three centuries ago the learned physicians of Greece and Rome had emancipated themselves, by scientific induction, from the brutal superstitions of the priesthood, and they clearly and boldly taught that *insanity was brain disease with prominent psychical symptoms;* that there are mental and bodily causes; that medicinal and dietetic means of cure should alone be employed, and that all severe measures of punishment and restraint should be rejected. With the downfall of the Roman empire, and with the decline of civilization, those humane and enlightened views were displaced by gross ignorance and superstition, and the lot of the insane became more wretched than at any previous time.

The insane were again supposed to be possessed of evil spirits, and were subjected to the most ingenious and horrible means of torture; and if they survived the free use of steel and fire, they were left to wear out their lives in chains and in foul, stinking dungeons. Thousands of them were executed as witches by brutal religious fanatics; and the in-

sane constituted a large portion of the fifty thousand persons executed as witches or effectually persecuted to death from 1400 to 1700 A. D.

This pitiful condition of the insane continued throughout the Middle Ages down to the beginning of the nineteenth century, and it was not until long after the Reformation, and the revival of letters and science, that there was any very essential amelioration in their condition. The sacerdotal phase of medical history that had extended from ancient Egypt and the Levitical physicians to the Æsculapian priests of Greece and Rome and throughout the Middle Ages, finally gave way to the philosophic phase of medical science of the seventeenth and eighteenth centuries—after the appearance of Kepler and Gallileo as the heralds of the advance of modern science, after Descartes had founded modern philosophy, after Bacon had aroused the thinking world by his inductive method in the study of nature, and after Harvey had published his researches on the circulation of the blood.

In Germany, in the beginning of the eighteenth century, the labors of Nasse, Jacobi, Vering, Friedrich, and others of the Somatic school, led to the thorough and systematic study of the somatic symptoms, and to the doctrine that physical disease was the cause of insanity. The Somatic school established a belief in the curability of insanity; a point of great importance with reference to the general amelioration of the condition of the insane, who had ordinarily been dealt with as beyond hope of cure.

In France, Pinel, in 1792, gained great renown by the humane and fearless manner in which he removed mechanical restraints from his patients in the *Bicetre*, and classed insanity among the neuroses, and to a certain extent conformed to the views expressed by Sauvage (1762), in his great work, *Nosologie Methodique.*

Esquirol followed, in the main, the classification of his master, Pinel, and arranged insanity into: 1st, Lypomania; 2nd, Monomania; 3rd, Mania; 4th, Dementia; 5th, Imbecility and Idiocy.

In England, Thomas Sydenham advanced the cause of medical science by advocating and practicing the inductive method of Hippocrates, and from the time of his death in 1689, to the present moment, the value of his teachings and writings in all the branches of general medicine have been recognized.

Cullen, in 1772, ten years after the publication in France of the great book of Sauvage's *Nosologie Methodique*, adopted a similar plan under natural science methods, and classified diseases into classes, orders, genera and species. In the Nosology of Cullen, insanity formed order IV, among the neuroses, and had four general divisions: 1st, Amentia; 2nd, Melancholia; 3rd, Mania; 4th, Onceirodynia, (Somnambulism and other derangements of sleep). The sub-divisions were numerous and based on symptomatological or etiological distinctions that corresponded in many respects very truthfully with clinical facts.

It is worthy of note that Pinel, who wrote some twenty years after the appearance of Cullen's Nosology, in like manner classed insanity among the neuroses, and grouped it upon a purely symptomatological principle under four heads—Mania, Melancholia. Dementia and Idiotism.

In 1786, Arnold, of England, published a treatise on insanity, with a nosological arrangement based on Hartley's modification of Lock's tenet, that the source of all human knowledge is sensation and reflection; therefore, any mental changes must be included either among sensoral ideas, or the notions formed by reflexion.

It would be foreign to our purpose to give an analysis of the works of Arnold, Crichton, Good and other English writers who employed psycho-symptomatological classifications and displayed both practical knowledge and metaphysic acuteness in the description of the different forms of insanity. Neither would it be possible in the brief space of time devoted to this report to give analysis of the works of Griesinger, Ray, Rush, Maudsley, Bucknill and Tuke, Morel, Skae, Parchappe, Voisin, Luys, Laycock, Meynert, Schule, Ball, Spitzka, and of many other writers who have en-

riched and advanced this most important branch of medical science

One of the most important objects which we have in view is to show that the *scientific and humane treatment of insanity is of modern date*, and, in fact, is one of the great achievements of medicine of the nineteenth century.

[TO BE CONTINUED.]

ART. V.—Clinical Lecture.* (1), Salpingo-Ovaritis; (2), Ovarian Tumor; (3), Fibroma Uteri

By E. E. MONTGOMERY, M. D., of Philadelphia, Pa.,

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(I.) SALPINGO-OVARITIS.—*Gentlemen:* The first patient I bring before you, is one, upon whom a laparatomy was done three weeks ago. She had been an inmate of the Hospital six weeks, and an invalid for over five months. She complained of frequent attacks of pain, an elevated temperature, chills, night-sweats, and a discharge of pus from the rectum. On examination, a slightly fluctuating mass could be distinguished, filling up the pelvis and projecting more to the right side. The continuous drain had produced marked emaciation. Although there was a free discharge of pus from the rectum, it was evident, from the aggravated character of the symptoms, that the pus cavity, at no time, was completely empty, and consequently some operative procedure was most certainly indicated.

The condition developing the abscess, is that known under a variety of terms, as pelvic cellulitis, and pelvic peritonitis, para- and peri-metritis, peri-uterine inflammation, pelvic abscess, and latterly, salpingo-ovaritis. The old nomenclature of this condition is faulty, in that it defines as separate pathological conditions, what are simply stages of the same disease. The last named term seems more acceptable, in that it names the form of inflammation, in which most probably all such conditions originate.

*Delivered in the Medico-Chirurgical Hospital.

The disease, in the majority of cases, is caused, by either the specific virus of gonorrhœa, or some septic infection—the latter, generally, after parturition or abortion. It is true, that we may have a mild adhesive peritonitis from cold or exposure during the menstrual period. In the more acute varieties, the inflammation extends continuously along the mucous membrane of the cavity of the uterus to that of the Fallopian tubes, producing salpingitis. Inflammation of any extent leads to extrusion of plasma, at the peritoneal margin of the tube, sealing up its orifice, while the uterine end is also occluded by swelling of the membrane. The inflamed surface, at first dry, soon pours out a free quantity of secretion, distending the tube into a sac. When this sac contains a watery secretion, it is known as hydrosalpinx: after suppuration and it is filled with pus, a pyosalpinx: and when blood, a hæmatosalpinx. When this sac becomes overfilled, its contents rupture the cyst wall, and escape, either into the peritoneal cavity, producing, at once, a general or partial peritonitis, or into the broad ligament, where it forms a larger sac, exciting inflammation in the contiguous tissues, known as pelvic cellulitis, or pelvic abscess.

An accumulation of pus may force an exit, in a variety of directions, as into an adherent coil of intestine, or the rectum, the bladder, vagina, uterus, the abdominal walls, or rupture into the abdominal cavity, producing dangerous, if not fatal peritonitis. The opening into the vagina is the most favorable; next to this the rectal opening is probably the best. The difficulty in any artificial opening, however, is that it is not certain to occur from the most dependent portion of the sac, and drainage is not complete.

Are incision and drainage of such a sac sufficient to accomplish a cure? Is such a procedure the best method of treatment? In some cases, such treatment results in complete discharge and disappearance of inflammatory exudation; but in the majority of cases, a pyogenic membrane and a collection of diseased tissues remain, which continually imperil the health and even life of the patient. The preferable procedure for pus in the pelvis, is, without doubt, ab-

dominal incision, with a view to the removal of the offending pus sac. Any palliative course of treatment leaves a continual source of danger, which may demand operation at a time, when the procedure would be very embarrassing and unsatisfactory.

I have just performed laparotomy upon a colored woman, who, some five weeks ago, presented a fluctuating protrusion in the posterior fornix of the vagina. The character of the symptoms plainly indicated that it was inflammatory, and an incision was made, by which some eight ounces of bloody serum was evacuated and a drainage tube inserted. Considerable more serous fluid was discharged within the next few days, and the temperature and general symptoms much improved; but at the end of a week she had an exaggeration of the unpleasant symptoms—as high temperature, rapid pulse, chills, severe pain, and profuse purulent and offensive discharge which, with the rapid emaciation and loss of strength consequent upon such a condition, demanded prompt operative interference. The case exemplifies the futility of vaginal drainage where we have a pyogenic membrane lining the sac.

To return to our patient; the abdominal incision disclosed a large pus sac, situated upon the right side, adherent to the posterior surface of the uterus so closely as to render it difficult to differentiate its relations. It was also adherent to the intestines and rectum, and filled up the pouch of Douglas. The adherent intestines were torn off, covered and held back with sponges and the sac opened and its contents removed. The entire sac was then, with considerable difficulty, shelled out, the cavity irrigated, the oozing surfaces sponged with a solution of liquor ferri-persulphatis, and a drainage tube was inserted. The wound was closed with chromatized cat-gut sutures, dusted with iodoform, and dressed with iodoform gauze and absorbent cotton. The cavity was frequently irrigated with a sulphurous acid solution. The patient suffered from profound shock and required stimulation and nourishment by the rectum. Upon removal of the sutures, the stitch wounds were found to be infected, discharging pus freely. The subsequent dressings were cotton saturated with (1 to 4000) acid sublimate solution. After ten days, a rubber drainage tube was substituted

for the glass, and the track still irrigated several times daily. This tube has been shortened several times, so that it is now not more than an inch long. The wound, you can see above, has entirely healed. The condition of the patient has greatly improved, and she now presents a prospect of speedy restoration to health.

(II.) Ovarian Tumor.—Mrs. N., aged 28, married, never pregnant, comes, from the central portion of the State, suffering from an abdominal distension. She suffered from pain in the right side of the pelvis for over three years, and noticed an enlargement of the abdomen, which gradually extended upward until, as you now see, the distension has reached the ensiform cartilage. She has at no time had swelling of the limbs or other portions of the body. As the patient lies upon the back, the abdominal swelling is nearly symmetrical and presents no irregularities.

If such a patient should present herself to you for diagnosis, you would run over in your mind the various growths or conditions that would, cause abdominal distension, as malignant or hydatid disease of the liver, cystic disease of the kidney, growths of the uterus, pregnancy, or ovarian cysts.

The symmetrical character of the distension, the history of the growth in the case now before us from below upward eliminate disease of the liver or of the kidney from consideration. The presence of distinct fluctuation over the whole surface, and the progress, set aside the probability of pregnancy, or growths of the uterus; so that we are brought to determine between ascites and ovarian cyst.

In these two conditions, abdominal distension and fluctuation are common symptoms. In the former, we generally find it a symptom of disease of the heart, kidneys or liver; and in the two first named accompanied with general anasarca. Interrogation of this patient's organs, shows them free from disease. In ascites, as the patient lies in the recumbent position, percussion over the surface discloses a zone of resonance at the summit of the swelling, due to the intestines being filled with gas floating to the surface, and this resonance changes with the position of the patient. Here, we have dullness over the summit, and resonance above and to the left side, or flank. Occasionally, in marked distension, superficial percussion will be dull, while deeper pressure affords resonance. Such a condition is due to a short mesentery or adhesions which prevent the intestines coming

in contact with the abdominal wall. We have to deal here with an ovarian cyst.

[This patient was operated upon, and a large thin-walled cyst removed. She did well for the first two weeks, when an attack of acute inflammatory rheumatism set in, from which she is now convalescing.

(III.) Fibroma Uteri.—The next patient is a single woman, aged 40 years, who has noticed an enlargement of the abdomen for the last year, which has rapidly increased in size during the last few months. Indeed, I can notice considerable enlargement since she was brought to my notice a month ago by Prof. Anders, of this School.

The abdominal projection is sharply defined, extending above the umbilicus, and is quite smooth and regular in outline. The superficial veins are enlarged and prominent, indicating interference with the return of blood through the deeper vessels.

The tumor is readily movable, and while elastic, or doughy, presents no fluctuation. A vaginal examination has disclosed that the tumor is a part of the uterus. Had I not made a previous examination, I should be inclined, from the superficial examination to-day, to believe that she was suffering from either a fibro-cystic growth of the uterus, or an ovarian cyst with thick viscid contents, and closely associated with the uterus.

[Subsequent operation disclosed a *fibro-sarcoma* of the uterus, in which the tumor was so œdematous, as to lead to the belief that it was fibro-cystic, even after removal, until no cyst could be found upon section. In removal, which was supra-vaginal, the bladder was stripped off in front; the descending colon on the left side and to the right; posteriorly, a large hematocele was opened, requiring drainage. The patient recovered]

Dioviburnia.

Dr. A. H. Smith, of Philadelphia, under date of July 11th, 1889, writes: "I am satisfied that Dioviburnia is a preparation of great merit. I shall use it when occasion requires its application."

Mellier's Fever Thermometer with indestructible index and certificate of variation, $1.50; in gold plate case, 75 cents extra.

Art. IX.—Trophopathy in the Fatty and Fibroid Degenerations*—Joint Paper.

By EPHRAIM CUTTER, M. D., LL. D., of New York, N. Y.

Gold Medalist of the Society of Science, Letters and Art, London; Author Boylston Prize Essay, 1857. Principal Medical Department of Instruction American Institute of Micrology, etc., etc.

And JOHN ASHBURTON CUTTER, M. D., B. Sc., of New York, N. Y.

Formerly Attending Physician to Dispensary No. 3 of the International Medical Missionary Society.

The animus of this contribution is the belief of the writers that *trophopathy* (*trophos*—food; *pathos*—disease), has more to do with the cause of the so-called incurable diseases than the profession gives credit to. And to show that our belief is founded on facts, we will immediately proceed to the consideration of the subject in the concrete, to wit: the reading of *histories of some patients that have been under our care.*

Case I.—A little more than four years ago, a gentleman brought to our office a friend, who appeared to the senior writer to be almost moribund; indeed, he feared that the man would die in the office. Examination showed the case to be suffering from an enlarged heart, a fibroid liver and Bright's disease of the kidneys; the urine contained albumen, casts and fatty epithelia.

We will here note that in our study of patients for the evidence of Bright's disease, little care is paid whether the casts are fatty, hyaline, waxy, etc. Amyloid bodies are usually found in the urine when the kidney is first breaking down. *But we consider no case to be full-fledged Bright's disease till albumen, casts and fatty epithelia are found.* There may be any one of these three, or any two; it is a common matter to find such cases which are just hovering along the the margin of health and disease, and yet not full-fledged, so to speak.

This patient, desperate as his case was, went under the treatment to be further on described, and recovered, and

* Read by the Junior Writer before the Section of Practice of Medicine, Materia Medica and Physiology of American Medical Association, at its Fortieth Annual Meeting, 1889.

would be here to-day for your examination if possible; his heart, liver and kidneys are now doing healthy work.

Case II.—About one year before his death, America's greatest laryngologist, Dr. Lewis Elsberg, came under the care of the senior writer. His case was one of Bright's disease, with all the signs as before enumerated. He was placed on rigid diet, but would take no medicine. This regimen he followed out for months, and all of the morphological and chemical evidences of his disease disappeared from the urine. He was then allowed some lee-way in his diet. The senior writer called one morning early at his office, and found Dr. Elsberg at breakfast, eating freely of all the starches and sugars that were placed before him. It was said to him, "Elsberg, if you persist in this reckless diet, you will kill yourself." The medical world knows how he died suddenly of pneumonia—perhaps "Bright's disease of the lungs."

Case III.—About four years ago, a millionaire was treated for two months for Bright's disease of the kidneys and lungs. At the expiration of that time, *feeling too poor* to continue under a physician's care, he undertook the direction of his own case; ate wrongly, over-worked, and while superintending some repairs in his house, was poisoned with sewer gas. The Doctor was sent for again, but the good work that had been done for him in the two months of treatment was thoroughly undone, and he died.

Case IV.—June, 1880, the senior writer called to see a primipara in a non-professional way. She was within three weeks of her expected confinement. He found her bloated; and on examination, the urine proved to be heavily albuminous, and contained casts and fatty epithelia. She was placed on rigid diet, but labor came on in thirty-six hours, and she was easily delivered of her child, which weighed but three and a half pounds. The placenta was covered with numerous elevations, which under the microscope proved to be made up of plates of cholesterine. Two days after confinement, a steam fire-engine came to the corner near the house in which she lived, and fastening to a hydrant commenced to pump. The noise worried her; entreaties to the engineer to desist were of no avail, and the poor woman went into convulsions. The senior writer arrived soon afterwards. She was kept under the influence of ether and was purged, but the convulsions did not cease till thirty-six hours had elapsed. She was placed on a diet

of beef tea; no medicine. Later on, broiled steaks were given her. The face was drawn to the side, and her brain was very weak. The regimen was persisted in till the pathological evidences were removed from the urine; and since this time her diet has been two-thirds animal and one-third vegetable food. She has borne two more children, both of whom are much more rugged than the first.

Case V.—Mrs. Blank went on treatment about four years ago. On thorough examination she was found to be sick with fibrous consumption, Bright's disease, and a small fibroid tumor of the womb, about the size of a man's fist. The evidences of Bright's disease disappeared; the fibroid tumor has gone, and we can say that she is cured of her fibrous consumption if there is such a thing as a cure of a chronic disease. She is now passing through the change of life, and can by no means be called a thoroughly well woman; yet if she were here to-day, I think you would find that she considers the diseased condition above described as not troubling her now.

Case VI.—Three years ago, a young married woman came to our office and was found to be sick with Bright's disease of the kidneys; indeed, it is rare to find urine that contained as many casts, and of all kinds, as hers did. She was placed on treatment, and in one month's time the pathological evidences had nearly all disappeared. She persevered, and to-day is enjoying good health.

Case VII.—The Rev. ———, Treasurer of the great Missionary Society, came under our care at about the same time as Case VI. He also had Bright's disease. He went on treatment, though keeping at his work. His loss of flesh and strength, at first greatly disturbed his wife, and it was hard work to make her believe that he should be held to the plans. After three months, he took a vacation in Maine, still pursuing the plans of diet and medication, and in the fall came back to work. This case may be called *in progress*. His occupation is a very laborious one, tiring to the mind, and full of worry. At the present he is under the plan of two-thirds animal and one-third vegetable food at a meal. June 18th, 1889, his urine presented no casts, no fatty epithelia, and but a trace of albumen. Yet he tells us that he has never in his life worked so hard as during the last month, and wonders that he holds on as well as he does.

Case VIII.—In 1877, the senior writer saw in consultation a lady who was said to be dying of Bright's disease.

The attending physicians wished blood to be transfused into her veins. She was as white as the sheets she lay between, was vomiting, and her urine confirmed the diagnosis made by the attendants. Before going back to Boston to get instruments to transfuse with, the senior writer sat down beside her, and taking a diet list from his pocket, asked her if she could eat the different foods as named thereon. She said "No," till tripe was mentioned, and replied that she could eat that. It was accordingly so ordered. On returning with instruments the next day, he was told that there was no need of operating, as the patient had retained the the tripe and was better.

In March, 1886, we were in this neighborhood operating on a case of uterine fibroid. On calling on her attending physician, the senior writer learned that she was alive; and on visiting her, he found a large florid woman who said, "that she was not much for work, but was far from being dead." It seemed that she lived on tripe and milk warm from the cow, and other animal foods for over two years. By that time the evidences of Bright's disease had gradually and wholly disappeared from the urine.

Case IX.—Some years ago, Miss A. B., aged 24 years, was put on strict diet for her fibroid, which was of some years standing, monolobed, interstitial, hard, invested the whole uterus and extended beyond the navel. She ate beef mostly, with clear tea and coffee, and took a simple tonic. It was much against her appetite, but, as she was a woman of a few words and of a determined will, and had confidence in her medical adviser, she persevered until the uterine fibroid had all disappeared, and she remains to-day in perfect health.

At present, in handling these cases of uterine fibroids, both diet and galvanism are employed; the latter according to the rules laid down by the senior writer in 1871. No one can say that this case was cured by the menopause, as so many medical agnostics as to the curability of uterine fibroids by either galvanism or food or both, claim. The history of the last eighteen years has proved conclusively, that uterine fibroids are no longer *opprobria medicorum.*

Case X.—In 1882, Mr. H. L. R., a small, not robust man,

over sixty years of age, for many years had difficult digestion, caused by over-feeding of vegetable food, so that the stomach was distended, walls infiltrated and hardened, causing a fibroid condition of the organ. When seen by the senior writer, he had been under treatment by Dr. Salisbury with hot water, chopped beef diet, stomachic medicines, etc. He ran down rapidly under the treatment, vomiting often and severely; throat sore, and deglutition difficult; emaciation, weakness, some fever at times. He had fainting fits, and appeared so moribund, that his wife thought he would die in her arms. His hands, feet and legs were cold; circulation feeble; stomach distress great; mind clear and tractable. There was also complete dullness on percussion over the hepatic region; the abdomen empty; walls drawn toward spine, flat, hard, not tender. He took no food by the mouth, but milk by the rectum. He was given nitric acid sponge baths—one teaspoonful acid to a pint of water, night and morning. Biniodide of mercury, 1-16th grain, was given twice a day; one grain of the sulphate of quinine was sprinkled once in two hours on the tongue, which was white and coated. A compress of linen cloth, wet in the nitric acid, was placed over the hepatic region and kept there till the skin was red. Though the vomiting continued for a little time, the effect of the rectal aliment told The administration of mercury was followed by a diminution of the liver dullness. Soon he was able to take of the beef essence by the mouth; though he had no appetite, still he kept taking it, and by degrees increased the amount till the essence of six pounds of beef daily were used by oral and rectal alimentation. Moving very carefully, the rectal administration was given up, and the beef essence continued by the mouth. The case slowly improved, the urine showing less and less reaction of bile, the dullness of the liver running abreast, with the exception of a few days—that is, the dullness diminished with the diminution of bile in the urine. In the course of six weeks the appetite returned; former treatment was resumed, and he remains cured, 1889.

Cases XI, XII, and XIII, were all sick of Bright's disease in 1878, 1880 and 1884. Cases XI and XII, each about sixty years of age; case XIII, 24 years old; all were practically treated on the same plans, and all are here to-day for your inspection, as cases of cures of a so-called incurable disease.

Case XIV.—In 1876, a middle-aged mother of a large

family, lay sick in bed of great grief at the loss of her last surviving daughter, who had died from the effects of the perforation of the vermiform appendix by an orange seed. There were present cardiac hypertrophy, and insufficiency of the left auriculo-ventricular valve—severe attacks of angina pectoris, when it seemed that death was near. The objective lesions, other than those named, were retroversion, engorgement, hardening, eversion of the os uteri, and behind the uterus, four small, hard, marble-like tumors; very severe pain, sharp and stinging in the pelvis mostly; profuse vaginal discharge, not bloody; menorrhagia. Added to this, there was loss of appetite, so complete that everything in the nature of food was loathed, even milk being repulsive; loss of flesh and strength, being unable to rise erect for ninety days; inability to lie on either side for most of the time; nausea; legs cold and sweaty up to the knees; oftimes great stomach distress, with wind colic; urine high-colored and of a rank smell, as if putrid; bowels constipated; a terrible feeling of nervous restlessness, causing her to move her feet rapidly up and down in the bed; visitors coming and assuring her by their looks and actions that she was about to die. Added to this, there was cancer in her family—her father having died with cancer of the stomach, and her maternal grandmother with cancer of the breast. She was put on general and local treatment, and it was faithfully carried out in connection with good nursing; but she gradually grew worse, until at the expiration of three months, the symptoms were so alarming that the senior writer was obliged to take strong and decisive grounds, and to tell her, "You must eat, or die of cancer of the womb. Make up your mind to one or the other." She decided to live and to eat—eating against her appetite, but with her intellect and reason and the advice of her medical attendant. She began with tenderloin steak, broiled and cut fine. The most she could take at first was a quantity represented by two teaspoonfuls; these she swallowed by a desperate effort, her stomach rising against it. She was fed every four hours. Even after she had fed thus for weeks, she felt she *would rather die almost than eat*, but battled against appetite by sheer force of will. The only way she could get down the beef was by swallowing one mouthful of lager beer, which was the only article which did not go against her stomach. The quantity of meat was increased gradually, and she was fed two months against the appetite. The nausea, however, left in about three or four weeks,

when she was able to move some, and was placed in a Cutter invalid chair part of the day. After two months of feeding she was taken carefully to the sea-shore, and there she began to get an appetite, but it took one year before she could walk five hundred feet. This patient did not fear death, but the form.

The results obtained by food are, in her case: (1.) Heart normal in size; (2.) Valvular insufficiency hardly conceivable; (3.) Angina pectoris gone; (4.) Uterine disease relieved, tumors disappeared, uterus mobile, discharges normal; (5.) Urine clear as champagne, 1015–1020 specific gravity, no odor, no deposit on cooling; and (6.) Restoration to active duties as housekeeper and mother of the family.

No medicine was given after the food treatment, save Hoffman's anodyne, when she had palpitation of the heart and suffocation of breath.

When we state that this case is here to-day, we think our hearers will admit that we have a living argument that we cannot ignore as to curability of chronically diseased tissues.

As the time is short, we will give no more histories, and proceed to the closing section of this contribution, to-wit: *Statement of Principles of Therapeutics.*

1. All cases of serious chronic disease which come under our care are usually placed on a rigid diet of beef, from the top of the round, which is freed, either by hand or by the use of the American or Enterprise chopper, from all fat and connective tissue. The resultant is the pure lean muscular fiber, which is moulded by the use of a knife and fork and broiled, served to the patient on a hot water-plate, and seasoned with pepper, butter and salt. In some cases, especially of fatty degeneration, butter is not allowed. Too much care cannot be given in the selection of the beef and in its preparation. The hand should touch the meat as little as possible, as the human animal heat changes the character of the muscle pulp. It is an art to prepare and broil the meat rightly; some mould the cakes too finely, and the resultant is not good for the patient. No physician or nurse should consider it an easy thing to prepare their beef properly. It

is hard work to make patients live on rigid diet; hence all the help that the art and chemistry of cooking can give should be utilized.

When the beef has been manipulated and broiled satisfactorily, the result will be a cake of pure muscle; its outside thoroughly done and of dark color; on opening it, the color is reddish, *but not raw.* Season with salt, pepper, butter, lemon juice, Worcestershire sauce, as desired. Exclude butter in bad cases of fatty degeneration.

2. In these days of hard work and too fast living, the busy man can do well if he eats but one meat and one vegetable at a meal. If he has plenty of time to use in laying around, that is another matter; then let him live to eat, and vegetate while doing so.

3. Attention must be paid to that great gland, the skin, by giving the whole body a daily sponge-bath of ammonia and water, and once a week a soap-and-water bath.

4. Passive exercise by rubbing and massage must be daily taken. A great amount of force can be placed in a sick person by the rubbing of him or her by a strong, composed healthy man or woman. The well person may place one hand on the forehead and the other on the ankle or thigh of the sick one. Once in a while we find a case that will not be rubbed—*i. e.*, the rubbing, instead of conferring force to the patient and soothing him, will irritate and annoy him. When the patient is improving, the riding of a bare-backed horse at a walk will confer force on him. Still later on, active exercise must be taken, as walking. Riding in an easy carriage must also be used as a means of passive exercise.

5. The patient's under-clothing must be changed night and morning; and care must be taken by the physician to see that the patient is clad warmly enough. Some people do not know what is the proper amount of clothes to wear.

6. The morals of the patient must be attended to. We are often asked, "How do you make your patients eat beef? I cannot make mine." The reply is simply, "We make them." Those that come to us are usually sick enough to care to do

most anything to get well. Indeed, they have been discouraged by the advices of friends and others that they could not be cured. Giving such a one the history of those that have been cured, even if as sick or sicker than the one about to commence treatment, and telling him that he is sick with a disease that has been commonly called incurable, that he is curable, and that if he will join hands with us and work together for the desired end, then, if the case consents, good can be accomplished. It is never right to say that you are going to cure a patient. Instead, let him know of his desperate condition, and what his chances are. A case of chronic disease should go on treatment for from six months to two years. He should pay by the month and in advance. This ensures better work on the part of the patient.

His blood and urine, also faeces, must be studied to see how the case improves, to see how much lee-way can be allowed in his dietary. He must be encouraged when in the slough of despond, and must be held back when getting better and feeling improved, waits to rush into work again. The mind must be closely studied, causes of worry removed as far as possible. The patient must be instructed that it is for his benefit for him to give up care and live with the minimum expenditure of nerve force.

7. *Medicines as commonly called.*—There can be no question that in the treatment of these chronic cases the food is the first and best medicine. If not so considered, then take down your text-books and read the matter found under the heading of therapy, and see what a hopeless enumeration of drugs there is. All that we can do is to get the nutrition on a proper basis, and turning the balance to the right side —*i. e.*, towards health, wait and see what Dame Nature will do. The waiting is the hardest part of the trouble; so is waiting in all human affairs. But we must not forget that the trouble has been caused by long continued acts of physiological sin; and it will take a long time of repentance and holy living to make the body whole again.

But if the cases here given have been accurately recorded and truthfully published, then it must be a fact, that as the

human tissues are all the time changing, if we give nature a chance, she will lay down the healthy in place of the morbid. How far this principle extends, only time will tell. The paper of the senior writer in the *Albany Medical Annals*, July and August, 1887, on "Diet in Cancer," contains some very valuable facts as to the action of food influences in causing and curing tissues under mob law—rioting, as it were.

Salisbury, in "The Relation of Alimentation of Disease." notes many experiments in the causation of chronic diseases by feeding different foods exclusively. We have before called on the profession to see that these experiments be repeated. If his observations are true, then they are of incalculable benefit to the profession; if not, their status should be known. It is to be hoped that these experiments on men and animals may be repeated on a large scale, *that we may know the truth.*

But as to medicines: Tonics are admissible. Pepsin should be used as indicated. Medicines to keep all of the glands in condition are in order.

As to milk. A great many physicians are using the exclusive milk diet, and with success in many cases. The condition of the urine as to biliousness when using milk must be ascertained. In our work, milk often disagrees with our patients. If given, it should be taken warm from the cow, or should be sterilized. Milk is very capable of absorbing germs of many kinds, especially those that are producers of fermentative changes.

Lastly, the use of hot water, one hour before meals, and on going to bed, is warmly recommended. It is a medicine par excellence for the stomach, liver, kidneys, and bowels. The water should be boiled (and spring water or distilled water is preferable); then cool down to a comfortable temperature. The position taken by the senior writer in 1883, in his small pamphlet, "The Therapeutical Drinking of Hot Water," is still maintained by him and corroborated by the junior writer. Hot water has undoubtedly proved to be the "water of life" to many a sick one.

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The Ariston, Broadway and 55th Street.

Clinical Reports.

A Case of Suprapubic Cystotomy for Encysted Stone.

By GEO. BEN. JOHNSTON, M. D., of Richmond, Va.

Late Professor of Anatomy Medical College of Virginia, Etc.

L. M., a frail young man of twenty-two years of age, was the subject. During infancy and childhood he was delicate. At the age of four years bladder symptoms appeared. Frequent and painful urination during the day with nocturnal incontinence. He was treated for catarrh of the bladder without relief. Later on, pronounced indications of stone appeared, but no search for stone was made.

At sixteen he contracted gonorrhœa, which was aggravated by drink and irregular habits. Gleet followed. A second attack of clap ensued after awhile. Gleet, and other manifestations of stricture, became prominent. A surgeon was consulted, who treated the stricture by gradual dilatation, until the urethra admitted a steel sound, No. 20 American scale. The distressing bladder trouble was not overcome by the dilatation of the stricture.

On October 1st, 1889, Dr. M. L. James was consulted and, upon investigation, discovered a stone.

Early in November, I saw the case with Dr. James. We agreed that the stone was encysted, and located it at a point a little above and to the right of the orifice of the right ureter. A reasonable effort failed to dislodge the stone; so a suprapubic lithotomy was advised.

On November 19th, 1889, the operation was performed after the usual fashion.

When the bladder was opened, the finger reached and easily disengaged the stone. A comparatively small opening was made in the bladder, for it was previously determined that the stone was small (weight, 156 grains).

All antiseptic precautions were taken in the management of the wound. The bladder walls were brought together, with a continuous cat-gut suture; the end corresponding to the upper notch was left long, and brought out at the upper angle of the surface wound. This was done that in the event it became necessary to re-open the bladder for the purpose of drainage, the bladder wound could be lifted into the surface wound by this fragment of suture.

The surface wound was closed after a short drainage-tube was introduced into its lower angle.

A Nelaton's catheter was tied in the bladder. A hypodermic morphia was given before anæsthesia from chloroform had passed off.

The first night was a quiet one. On the second day, there was a slight rise of temperature. During the second night, a purulent discharge from the urethra appeared, and on the third day became quite copious. This ceased on the fourth day, when the catheter was permanently removed.

The dressing was examined daily to see that no leakage from the bladder occurred—a precaution which should always be observed.

On the sixth day, the dressing was left off, the wound having firmly healed, and only a strip of adhesive plaster applied to support the parts.

The urine was retained without discomfort after the fourth day and voided by gentle effort.

On the sixth day, the patient was permitted to leave his bed.

A better result than was gotten in this case could hardly have followed even so mild a method as litholapaxy. The speedy cure I attribute to the suturing of the bladder wound, which brought about immediate healing; and thus the external wound was permitted to heal by first intention.

This essential feature in the after-treatment of suprapubic cystotomies may often be procured, I think, if we observe absolutely three rules:

1st. Most careful application of antiseptic methods.

2nd. By thoroughly and accurately closing the bladder-wound so as to preclude any leakage of urine.

3rd. By keeping the bladder-walls fixed during the first two days, which can be done by proper drainage and rest in the dorsal position.

A Case of La Grippe—With a Variation.

By HUGH STOCKDELL, M. D., of Petersburg, Va.

Ex-Member Medical Examining Board of Virginia, Etc.

On Sunday, the 5th January, I received a note from Mrs. G., an intelligent married lady, asking me to call to see her before nightfall, as she considered herself, from her symptoms, a victim of *la grippe*.

Accordingly, I found her in bed with some catarrhal symptoms, but complaining chiefly of pain in her back and head, and I elicited the further information, which had not been imparted to me before, that she was within a week of her expected confinement. She had been taking quinine freely, and was slightly nervous; but as there was no swelling of the extremities or other evidences of hydræmia present, I contented myself with a prescription of the bromides and left, rather expecting to be called during the night to conduct her labor. Sooner than I anticipated, however, I received an earnest summons to her bedside, the messenger stating that she was entirely unconscious and thought to be dying. I found her extremely prostrated, but conscious, from what was evidently a convulsion, and, while waiting for remedies to be brought, she had another violent one. After that, I administered a hypodermic of morphia which, with the aid of chloroform, gave her rest and immunity until, some four hours later, labor terminated in the birth of a scarcely living child, when she had another seizure, and I repeated the hypodermic. Mother and child, I am happy to say, have done well from that time.

This case illustrates the firm hold upon the thoughts of

the people generally which the expected epidemic has taken, and no wonder, when the daily papers are filled with accounts of it. Here was a woman of some experience in such matters, for she is thrice a mother, ignoring entirely the symptoms of approaching labor, and attributing all to *la grippe!*—truly an old-fashioned grip, and more nearly reaching the proportions of an epidemic in this community at present than anything else that I know of. Our people are growing impatient at the slow approach of the much-talked-of influenza; and in the interest of a profession which has not been overworked in this section for some months past, may we not be allowed to hope that it *will* come, and not stand upon the order of its coming, but come at once!

32 *S. Market Street.*

Correspondence.

Buffalo Lithia Water for Nephritic Colic.

Mr. Editor:—The very interesting, though brief report on "*Buffalo Lithia Water in the Treatment of Stone in the Bladder—its Solvent Properties—its Value in Bright's Disease, Cystitis, etc.*, by John Herbert Claiborne, M. A., M. D., of Petersburg, Va., Ex-President of the Medical Society of Virginia, etc.," recalls to my mind some *personal* experience of my own, which I think ought also to be recorded as a guide to some brother practitioner in search of a remedy for the condition described.

Four years ago, during the whole summer, I had recurrent paroxysms of nephritic colic at intervals of less than a week. They were extremely violent in character, and made serious inroads upon my general health. I treated the paroxysms of pain in the ordinary way, but used Buffalo Lithia Water, Spring No. 2, as the only curative remedy. Of this water, I drank large quantities exclusively for a period of over six months; and to the solvent properties

of this *Lithia* Water, I believe my improvement was due, as I passed several large calculi during that time, and have not had the slightest trouble since.

Of course, I claim no originality in the suggestion which I have adopted for myself—having seen its potency in just such cases frequently and highly recommended. But the result of the use of Buffalo Lithia Water in my case of renal colic, appears to me to be so markedly satisfactory, that I have thought this *practitioner's note* might help to sustain the opinion which others beside yourself have expressed with reference to the special virtues of the water of Spring No. 2 of the Buffalo Lithia Springs in cases of renal calculus, uric acid diathesis, the irritable bladder due to these conditions, etc. I was glad to see from your editorial mention [December No., 1889,] that such standard works as the *Reference Hand-Book of the Medical Sciences* and Dr. Willard's *Treatise on Bright's Disease* have prominently incorporated the Buffalo [Va.] Lithia Waters in the lists of remedies for lithiasis, etc. Yours, &c.,

F. S. Hope, M. D.

Portsmouth, Va., December 14th, 1889.

The Use of Chloroform in Obstetrical Practice.

Mr. Editor: A question that has been freely discussed by medical societies is the use of anæsthetics, especially the two most common ones—chloroform and sulphuric ether. In general terms, in considering the uses of all drugs, it is well to avoid taking an extreme position for or against. The tendency with the mass of the profession is to follow the lead of prominent men, and accept their *dicta* without hesitation. The whole system of practice ought to be subject to the discretion and sound judgment of the individual physician in charge of a case; and his treatment should be modified by the circumstances which he alone can carefully consider, and to which he can give their full value.

There can be no absolute law laid down as to the employment of an anæsthetic; or, in other words, there is the same objection to their routine use that there is to routine practice generally. We object strongly to enthusiasts, whether in regard to medical matters or the affairs of every-day life. What we need in this day of medical journals and voluminous writers is practical information—not that we object to theories or theorists, who give the best years of their lives to proving their various hypotheses, for by such study, and the application of thoroughly-trained minds, we have arrived at much of our most certain knowledge. This question is a practical one, but many writers can see only one side to it, and seem inclined to shut out chloroform altogether.

There is one class of cases, however, in which all agree that chloroform is preferable, viz.: obstetrical practice. Explanations of its safety have been made time and again, the chief stress being laid upon the enforced recumbent position during its administration. This, doubtless, should have some weight; but is not satisfactory in itself, as occasionally death would occur were there no other reason preventing it. A much better explanation is the condition of the circulation during a pain. As described by a recent writer: "At the very time that you are administering the anæsthetic most freely—that is, during the increment of a pain—at that very moment the contraction of the uterus is driving blood back upon the brain—a forcing-pump refilling the cranium, should your chloroform be removing the blood too freely from it." That is a very reasonable view to take of the matter; but there is one respect in which a labor pain differs from any other that I can now call to mind that may throw more light upon this subject, viz.: *it culminates in a forced expiration.* This fact alone would prevent an overdose in the hands of a careful attendant. As usually administered, it is withheld during the interval, until the indications of an approaching pain are apparent. It is then offered to the patient, who, after making a few deep inhalations, ceases to inspire, holding her breath until

the height of the pain is reached. The chloroform is then withdrawn, and she is allowed to breathe air until the approach of another pain. Continued inhalation is necessary for a fatal effect, and this the nature of the pain prevents, whether the drug be withdrawn after two or three inspirations or not, provided, of course, its administration be stopped at the *close* of a pain and the woman be allowed to recover from its effects in the interval. Death from chloroform so administered would seem to be impossible in the case of a woman in ordinary health, suffering from no organic trouble of the heart or other organs.

W. R. Cushing, M. D.,

Dublin, Va., December 18th, 1889.

Original Translations.

From the German. By MOSES D. HOGE, Jr., M. D., Richmond, Va.

Obstruction Treated by Gas-Lavage.

A new, and what seems to be a method of treating this dangerous disease, has been recently published by Dr. S. V. Rietz, (*Centrelbl. f. Chir.*, 1889, 29).

A workman was admitted to the hospital on the 17th of the month, who, suffering from obstruction of the bowels, had tried in vain to relieve his condition by cathartics. There was offensive stercoraceous vomiting, and to the left of the navel a hard tumor was felt. Injections of water under considerable pressure and washing out the stomach were of no avail, although the vomiting was better.

On the 21st, his condition was much worse, again vomiting, cold perspiration, restlessness and meteorismus; pulse 120, temperature 102. One ounce of bi-carbonate of soda, and one-half ounce of tartaric acid, were each dissolved in three ounces of water, and one injected in the anus after another, and the opening closed with the thumb. The patient, who was in the knee-elbow position, complained of violent pain. The gas was confined for about five minutes, and then allowed to escape. Three hours later this operation was repeated, with one-half of the above mentioned dose, and in a short while the patient had a full operation.

The obstruction was relieved, and nine days after the entrance into the hospital, the patient was discharged, cured.

Sulfonal in Night Sweats.

It has been found that sulfonal acts in a very similar way to atropin in controlling night sweats. Böttrich prescribed it in the case of an old lady who suffered from sleeplessness; and having a happy effect, he was asked if it had any influence on perspiration. He was induced to try it in several cases of phthisis in eight grain doses, and found it not only produced sleep, but checked the night sweats as well. (*Therapeut. Monats.*, 1889, 3).

The Reliability of Koch's Bacillus.

It seems almost superfluous to emphasize the necessity of examining the sputum of persons suspected of tubercular phthisis as a means of positive diagnosis; yet the following interesting case by Hausmann, (*Rundschau*, 1889, A. 13), proves how important it is in regard to therapeutics. Several years ago, a patient consulted him who was very much emaciated; had violent diarrhœa; middle lobe of the right lung, and upper lobe of the left were infiltrated and partially destroyed The sputum was copious, coin shaped, and sank to the bottom in water. The year before he was castrated, and soon after he had caries of the vertebræ. He was sent from one place to another and treated by many distinguished physicians, but without benefit. The sputum was carefully examined by Hausmann and his assistants, but no trace of bacillus could be found. The patient had positively denied any possibility of syphilis, until slight bony protuberances appeared, when he then confessed as to having perhaps been infected years before. As still no bacilli could be found in the sputum, he was put upon anti-syphilitic remedies, which soon proved, in the most conclusive manner, that the patient had syphilis and not tuberculosis. He is now alive, and in spite of the enormous loss of lung tissue, is in very good health and entirely free from fever and diarrhœa. It is very questionable whether castration was justified in this case.

Asthma—New Treatment.

Among the numerous empirical remedies proposed for the treatment of asthma, Zipp (*Rundschau* 1889, H. 13), recommends dilatation of the nostrils when the cause seems to be in the nose. Two cases are reported with excellent results. The first was a young lady who had been operated upon for a deflected septum, in which the mucous folds of the mem-

branes were in contact. She was benefited, but having a relapse, Hegar's bougies in gradually increasing sizes were introduced, and allowed to remain each three minutes, till the trouble disappeared. The second case was treated in a similar manner, with like results. The object is to widen the entrance as well as to compass the mucous membrane; this simple operation requiring no assistance or anæsthetic, deserves a further and fuller trial.

Proceedings of Societies, Boards, etc

CHATTANOOGA [TENN.] MEDICAL SOCIETY.

Regular Meeting December 6th, 1889.

[Specially Reported by Fred. B. Stapp, M. D., Secretary.]

Subcutaneous Multiple Fibromata.

Dr. Jas. E. Reeves introduced Mr. ———, aged 37 years, whose case was one of rare interest. Sixteen years ago he discovered a tumor under the right knee-joint, which soon became painful on movement of the limb. When the tumor had grown to the size of a hen's egg, he had it removed; and, since the operation, there has been no return of the growth at that part; but soon other tumors on the legs and arms made their appearance, and now he has, probably, a hundred of them. The forearms are much out of shape, because of the presence of these tumors, the largest ones growing on the ulnar side of the wrist. The feet, hands, and face have thus far escaped such growths.

The subject leads an active life, and is in fine general health.

Chronic Interstitial Hepatitis.

Dr. Cooper Holtzclaw reported the following case: Male, æt. 60; carpenter; came under observation fourteen months ago (September, 1888); abdomen immensely enlarged with ascetic fluid; heart-sounds were normal and rhythm regular, but in action rather weak; urine normal, except containing excess of urates; no pain, except dyspnœa from ascitis; no anasarca of feet, legs, or genitals; appetite good. Previous history was, that six months before this time the swelling in the abdomen began, and about this time he had a slight diarrhœa, lasting a few days; but he was not confined to

bed. He had used alcoholic stimulants moderately—not to excess—for several years previous. No history of pain, enlargement of liver, or any other subjective symptom.

Diagnosis.—Interstitial nephritis or sclerosis—the cirrhosis of the French and the hob-nail liver of English. This was one of the rare forms of the disease, which seemed to occur without any initial inflammatory and hypertrophid condition.

At the time of his admission to the hospital, in 1888, he had an almost perfect compensatory circulation through the superficial veins of the abdomen, forming a complete "caput medusæ." He was immediately tapped, and relieved of three gallons of fluid. He was put on tonic treatment and saline cathartic. Milk treatment is best. Abdomen filled up in six weeks, then again in five weeks, then in four, etc., until, for the last six months, it was necessary to tap him every week or ten days, drawing each time two to four gallons of a yellow, and sometimes brownish, albumenic fluid. He frequently suffered with hæmorrhoids, hæmetemesis, melænesis, and hæmorrhage from bowels; after which, was better. Stools were fetid, and clay colored; continuance dusky, or fawn-colored, but never icteroid.

The autopsy, kindly made by Drs. Chase and Berlin, showed contracted liver, with deposits of fat. The peritoneum was thickened and congested, and adherent to the mesentery and intestines by fibrillous bands; stomach normal, except slight thickening at pylorus; kidneys normal; spleen enlarged three or four times.

The special features of case were—

1. Absence of initial inflammatory symptoms.
2. Absence of anasarca.
3. Great number of tappings, and immense quantity of fluid obtained.
4. Remarkable development of compensatory circulation.

Dr. Jas. E. Reeves added to the interest of this case by the following letter, dated Dec. 3rd:

"*Dear Dr. Holtzclaw,*—The case from which you collected pathological material for my examination, microscopically, was, without doubt, one of *chronic inflammation of the intestinal connective tissue of the liver*—the most important affection of the liver that can engage the attention of the physician.

While the disease occurs with greatest frequency in whiskey drinkers, it may be produced from various other causes

of irritation. Young children have been known to have the disease—a typical cirrhosis of the liver.

The interstitial connective tissue follows the course of the portal vessels, forming the framework, so to speak, which supports the portal vein and its branches. The new-formed material is produced outside the lobules, in the majority of instances; sometimes, however, it extends into the interior of the lobules, producing an intercellular cirrhosis; but this is rarely seen, even in syphilitic subjects.

Charcot, and other pathologists, have described a special form of hypertrophic cirrhosis, in which there is much enlargement of the liver; but, as a rule, even in such cases, before the case proves fatal, contraction of the organ, with great destruction of the hepatic cells, by fatty degeneration, takes place.

In this case, the specimen furnished me shows islands of hepatic cells, surrounded by the new-formed connective tissue, which fairly glisten with oil globules of various sizes. In many of the cells—indeed, large fields—nothing remains but the cell-wall; the oil drops having fallen out during the process of mounting the section.

The so-called hob-nail liver, with its small surface projections, contraction, and cirrhotic character, is in marked contrast with the smooth and enlarged liver in hypertrophic cirrhosis.

The immediate effect of this condition of the liver is obstruction of the portal circulation, with chronic passive hyperæmia of all its branches—in the peritoneum, mucous membrane of the stomach, and spleen, which almost invariably enlarged. In this way, because of the obstruction, and consequent dilatation or widening of the portal radicles and the systemic veins, the internal hæmorrhoidal veins become dilated, and *piles* are produced.

But the most invariable concomitant of such disease of the liver is ascites; jaundice rare or infrequent; and the patient dies from the results of continuous passive hyperæmia—the ascites and persistent catarrh of the alimentary canal, including, perhaps, hæmorrhages, being the more striking features of the clinical history, from beginning to end.

The case was a most interesting one, and I hope you will report it to the Society."

Subnormal Temperature Effects of Antipyrin, Etc.

Dr. G. A. Baxter said that in a child nine years old, to whom two grains of *antipyrin* had been given, the tempera-

ture went to 95°, and it was a week before it became normal. Drs. P. D. Sims and W. T. Hope had seen it. Several different thermometers were used.

Dr. T. C. V. Barkley did not think the medicine caused the subnormal temperature, and related an instance where he, having prescribed *antifebrin*, the temperature became subnormal, and the patient was cyanused. He afterwards found the patient had not taken the medicine.

Dr. J. E. Reeves often gives *antipyrin for painful menstruation.* He often combines cocaine with it.

Dr. Charles G. McGahan said he had seen several cases where *sulfonal has produced a disturbance in the gait* One patient said he felt as if he had been on a drunk.

Book Notices.

The National Medical Dictionary, including English, French, German, Italian and Latin Technical Terms used in Medicine and Collateral Sciences, and a Series of Tables of Useful Data. By JOHN S. BILLINGS, A. M., M. D., LL. D., Edin., and Harv., D. C. L. Oxon. Member of the National Academy of Sciences; Surgeon U. S. A., etc, etc. *With the collaboration of Drs. W. O Atwater, Frank Baker, S. M. Burnett, W. T. Councilman, James M. Flint, J. A. Kidder, William Lee, R Lorini, Washington Matthews, C. S. Minot, H. C. Yarrow.* In two royal 8 vo. Volumes. Vol. I.—A. to J.—Pages xlvi—731. Vol II.—K. to Z.—Pages 799. Philadelphia: Lea Brothers & Co., 1890. (From Publishers.)

We hasten to mention the publication of this work—so nicely printed, with clear type, in double columns, and by an author of world-wide reputation for scholarly ability, energy and influence—because there are many practitioners who are waiting for awhile to select the best of the several dictionaries announced to be in preparation. The common question with American doctors will be, "How does it compare with Dunglison's?" To speak our opinion candidly, in a general sense, that dictionary, were it properly "up to the times," would be preferred because of the more satisfactory arrangement of synonyms, etc., but for one reason or another, that work, which has been *the* authority in the United States, at least for nearly a half century, is being allowed to pass out of print; and we have to adopt another. The "National Medical Dictionary" comes in to

take its place. It may be depended upon that all the words admitted by Dr. Billings, are authoritatively introduced, both as to spelling, pronunciation and definition. And, further, it should be said that a thorough examination of the work shows that he has introduced pretty much all of the latest medical words—thus making the work almost indispensable to the reading doctor. Among the features which further recommend the National Medical Directory, is the series of tables prefixed to Volume I, most of which tables are compiled from works, etc., which can be found only in large libraries. These tables include a list of doses, antidotes in common forms of poisoning, etc., the inch and metric system of numbering spectacle-glasses, thermometric scales, average dimension of fœtus at different ages, tables of average dimensions of the parts and organs of the adult human body, and of the weights of organs, tables of percentages of nutritive ingredients in many foods, the proportions that are actually digestible, their potential energy, (fuel valves), standard for dietaries for different classes, occupations, corpulence, etc. A life-expectation table, as derived from the records of American life insurance companies, etc., is among the list of extra matter which is both serviceable and instructive.

Principles and Practice of Surgery. By JOHN ASHHURST, Jr., M. D., Barton Professor of Surgery, and Professor of Clinical Surgery in University of Pennsylvania, etc., etc. Fifth edition, enlarged and thoroughly revised. With 642 illustrations. Philadelphia; Lea Brothers & Co. 1889. 8 vo. Pp. 1148. Leather. (From Publishers).

Undoubtedly "Ashhurst's Surgery" is an excellent help to the general practitioner who has often to assume charge of surgical cases. The work covers the whole field of surgery—Drs. De Schweinitz and Randal contributing chapters on diseases and injuries of the eyes and ears Each article shows that the author has well searched medical literature, and examined the experiences of distinguished surgeons, in order to perfect the revision of the present edition, so as to incorporate the latest as well as best practices. This fact makes it a little singular, that we find no mention of Dr. Hunter McGuire in connection with the supra-pubic operation for the treatment of enlarged prostate, etc. He thinks the evidence in favor of Dr. Crawford W. Long's claim of discovery in 1842, of surgical anæsthesia by ether inconclusive.

Editorial.

Influenza—(Epidemic Catarrh; Dengue Fever; La Grippe; Tyler Grippe in U. S., 1837.)

Up to the moment of going to press, we have not been able to find in our exchanges, foreign or domestic, a solution of the question as to the cause of influenza. The present epidemic began in Russia sometime during the summer of 1889, and has slowly marched Westward—mostly through the Middle countries of Europe—until, during December, it reached the United States. We have but little of it in any of the rural districts; and undoubtedly the disease has shown its greatest force in the larger cities. Its greatest severity has, perhaps, been most marked in Paris. Investigations are going on in the several medical centres to discover the essential cause—whether it be a microbe, bacillus, bacterium, etc., but thus far without satisfactory result. So that, up to the present time, so as not to wed ourselves to any fanciful theory from which we may have to become divorced in a short while, it is best for the profession simply to look upon the influenza, as simply *epidemic catarrh*, or "la grippe."

In the search for the first case that occurred in this country in 1889—which must be very difficult to decide from the very nature of the manifestations of the disease—it is recorded that the first case that occurred in New York city about the middle of November, 1888, was a woman who had the day before received a letter from Berlin, where the disease was prevailing at the time the letter was written. Whether by this letter the contagium was introduced into this country, will remain a matter of conjecture or suggestion only. It would be a strain upon the most credulous, however, to fix upon this letter as the introducer of the pandemic into New York city. It would be much more reasonable to assume that the germs of the disease were imported by some other channel. Yet it is well to let the fact stand for what it is worth—that, up to the present time, the first distinctly recognizable case in New York city during this epidemic, occurred in this woman who received a letter from Berlin.

Whether the disease is contagious or not, must remain an open question. Upon what authority we have not been able to find—it is stated as a singular coincidence that in some boarding house, "the person who sat at the head of

the table was seized first; then the second, and each one in turn on one side of the table contracted it." Such a coincidence does not belong to the history of any disease, and hence, it is safest to record this simply as a curious oddity of occurrence.

From New York city, the epidemic began, about Christmas of 1889, to take its march in all directions. It has reached Philadelphia and Baltimore, and in various more remote cities, there is prevailing a sort of epidemic of intractable colds. Pre-existing catarrhal troubles especially are becoming aggravated, and this before the distinctive disease has reached communities.

The symptoms of influenza "Are those of an unusually severe catarrh, affecting the mucous membrane of the nose, eyes, throat, larynx and upper bronchi. Sometimes the other mucous membranes are affected—none of them being proof against the disease. Whatever may be the grade of the attack, or the part upon which its full force is expended, we have present an amount of depression which is out of all proportion to the severity of the disease, as compared with the ordinary forms of catarrh. It is this which occasions the curious observation that, while few die of influenza, its prevalence is marked by a great increase in the general death rate; for the depression is not limited to those who have severe attacks of influenza, but is practically universal in the affected community. So that people who have long been ailing with cancer, phthisis, Bright's disease, diabetes, etc., and who have been just able to bear up under their ailments, cannot withstand this added affliction" (Waugh). We adopt this quotation as expressing the common description.

But it is evident that this description, covering so many cases in general, does not well enough define certain complex of symptoms. According to *St. Petersburger Med. Wochenschrift* (Nov. 30, 1889), there are certainly three groups of symptoms in different cases.

1. *In the purely nervous form*, the pains are sometimes of a neuralgic character, and simulate a beginning pleuritis, etc., and has often led to a mistaken diagnosis of incipient typhoid fever. But the respiratory and intestinal mucous membrane is perfectly normal. Nasal catarrh, etc., are not present or marked.

2. *In the respiratory catarrhal form*, bronchial catarrh, snuffles and conjunctivitis develop with the fever (or sometimes only becomes conspicuous after its abatement), and generally last four days after the disappearance of the fever.

3. *The gastric form with catarrhal affection of the digestive tract*, which sets in with frequent vomiting, which may last one or two days.

To these, according to the history of cases occurring in Richmond (Jan, 10, 1890), at least three distinct groups are to be added:

4. *The dengue fever form*, in which it would seem that several, or every bone in the body, were about to break—very forcibly reminding the sufferer of the intense "break-bone fever," or dengue of our Southern States. This form may occur with or without catarrhal symptoms.

5. *The rheumatoid form*, suggesting, in some cases, the onset of acute articular rheumatism, and yet without the usual swelling of the joints. In other instances, it assumes the chronic muscular form of rheumatism, as typified in lumbago, etc., with which, indeed, it may be identical. These rheumatoid forms do not appear to have marked mucous membrane symptoms.

6. *The cutaneous eruption form.* The eruptions are very various in form, and usually attended with pruritus of an intense degree.

The complications of greatest importance are the development—perhaps by simple extension of the catarrhal inflammation of the larynx, trachea, etc.,—of broncho- and croupous pneumonia. Either of these diseases occurring in a person already about broken down in strength by the influenza itself, makes the case a most serious one. Erythema, roseola, urticaria, etc., are other complications; but sometimes the inflammation attacks the various serous membranes, and causes alarming symptoms, if not fatal effects. Diarrhœa, of a prolonged and watery character, but usually without pain, is another complication, and requires small doses of laudanum for its relief. Salicylate of bismuth is also good. It aggravates almost every pre-existing disease, and thus increases fatality among the old and feeble.

As an abortive treatment, it has been claimed that a spray of wine of ipecac and a dose of Dovers' powder at bedtime, "nip the affection in the bud." It is difficult to estimate with accuracy the properties of the essential oils, such as pinol or pumiline, in averting an attack, but they possess the merit of being agreeable and refreshing. If there be a prophylactic remedy, it most probably will be found in the cinchona series, such as five or six grains of cinchonidia salicylate three or four times in the twenty-four hours. Of sanitary measures, persons should remain in doors. The smok-

ing of cigars and cigarettes, made of the fresh pine needle and tobacco, is said to act like magic in prevention as well as in cutting the disease short.

As to the therapeutics of influenza or dengue fever, as it is also called, the *Medical Press and Circular* states that the duration (3 or 4 days) of acute attack "is so short that no small amount of professional agility is required to make any headway with treatment before the malady has girded up its loins, and betaken itself elsewhere, leaving a haggard and enfeebled ex-sufferer to mourn its loss."

The principal remedies used in German and Russian practice have been antipyrin, (ten grains), and codeine, (one-sixth grain), combined with a little bicarbonate of sodium. Salol relieves the severity of symptoms in many cases—the nasal trouble being treated at the same time with lanoline ointment containing menthol and cocaine. A good pill, combining antipyretic, tonic and anodyne properties, may be made of two grains each of acetanilide and quinia sulphate, and about a sixth of a grain of cocaine muriate. One such pill may be given every three or four hours to an adult. But as some patients cannot take cocaine in any form or inserviceable quantity, it is well to remember the combination of quinia sulphate, arsenious acid and atropia sulphate, which combination has a specific action upon mucous membranes. Potassium bromide helps very much to relieve the headache. Bartholow suggests from the beginning the use of a grain or two of calomel at night, with inhalation of sulphurous acid gas and let the patient remain in his room where steam containing eucalyptol can be inhaled in large quantities. Insufflation of resorcin by dusting it over the entire area of affected parts as far as possible, is also recommended. Phenacetin (four grains every three hours), rapidly relieves the muscular pains—the patient breaking out in a profuse perspiration—and in a few hours seems relieved of all but the catarrhal symptoms, which run their natural course.

After the acute stage is passed, and the patient enters upon a limp and protracted convalescence, quinine, coca wine and tonic meat preparations, etc., are very useful. Among the best of these preparations, Robinson's Wine of Coca—a tablespoonful three or four times a day—and Liebig & Co's., Coca Beef Tonic in little larger doses, should be specially mentioned. Large doses of Huxham's tincture of bark should also be remembered as useful.

Standardized Pharmaceutical Preparations.

The Committee for the Revision of the U. S. Pharmacopœia for 1890, assumes a very responsible trust. The every day experience of practitioners, shows that there is a radical error in the present system of making tinctures, fluid extracts, etc. The crude root or leaf, for instance, of a plant of the same species does not, by any means, yield tinctures of the same assayed potency. The crude drug itself varies in the percentage of active principle it contains. Especially is there a necessity for a higher standard of accuracy for toxic and narcotic preparations. Each article of the pharmacist should have a uniform and definite strength.

We have been much interested in examining the various suggestions as they have recently teemed from the pharmaceutical and medical press. The more we think of it, the more are we persuaded that Messrs. Parke, Davis & Co., of Detroit, Mich., brought forward, in 1883, the correct principle for adoption. To this firm of distinguished pharmacal chemists, is due the credit, by the introduction of their "Normal Liquids," of being the first to meet the wants of the profession in this matter. Especially does the medical profession show a decided preference for such "normal liquids" of toxic and narcotic drugs. They are practically concentrated tinctures or fluid extracts, *adjusted by assay* to a fixed standard of strength, which makes them absolutely uniform in composition, and hence their uniform therapeutic action. A quantitative estimation of the active medicinal ingredients of the crude drug should be demanded before the fluid preparation is made by percolation, etc., and even then the fluid preparation should be tested before being put on the market to determine that it is of the *standard* strength. The originators of Normal Liquids have adopted formulæ, which make 1 ccm. of the normal liquids of the more potent drugs represent 1 gramme of drug of standard strength. While they have paved the way, it remains for the Committee on Revision of the Pharmacopœia to determine what shall be the standard of strength. This committee cannot ignore the credit that rightfully belongs to Messrs. Parke, Davis & Co., for having introduced the concentrated tinctures or "normal liquids"—each one being carefully tested, and thus determined to be of the published standard degree of potency.

Tongaline for La Grippe.

The Nellier Drug Company, of St. Louis, have a page advertisement on this subject in this issue.

Physician s Hand-book for 1890, by Albert D. Elmer, M. D.

This 33rd year publication is an entirely new edition. Formerly it was published by the W. A. Townsend Publishing Co., but now it is issued by that most tasty of medical publishers, G. P. Putnam's Sons, of New York, N. Y. It contains 300 blank pages, arranged in diary form for 34 or 68 patients weekly; and is so ruled as to admit of a compact record of practice, memoranda, etc. The printed matter consists of a new classification of diseases, symptoms and treatment; classified list of poisons, antidotes, etc. What to do in emergencies,; urinary examination; pulse and thermometry in diseases; incompatibilities; diagnostic record etc., etc. The book is suitable size for coat pocket; bound in English morocco, with tucks and pencil, etc. Price, with printed matter, $1.50; without printed matter, $1.25.

Information Sought about Electrolysis of Uterine Fibroids.

Dr. A. Martin, of Berlin, writes that during the session of the Gynæcological Section of the Tenth International Medical Congress in his city, Apostoli will introduce the discussion on "Electrolysis in Uterine Neoplasms," and Dr. Ephraim Cutter, of New York, has been invited to follow him on the same subject; Th. Keith, of Edinburg, and Zweifel, of Leipsig, will follow Dr. Cutter. Dr. Cutter, (1730 Broadway, New York, N. Y,.) will be glad to receive information from Americans as to their experience and opinions about electrolysis of uterine fibroids, and will give due credit to all concerned. The compliment thus given to our countryman should be recognized by affording him promptly all the information desired.

The College of Physicians and Surgeons of Baltimore, Md.,

Assumed charge of the Medical and Surgical Service of the new City Hospital of Baltimore, North Calvert street, on January 1st, 1890. In every respect, the Hospital is reported to have the best of appointments, as we feel confident the Service will be excellent.

Life of Jefferson Davis.

The Publisher, Mr. J. S. Ogilvie, 57 Rose St., New York, N. Y., has issued this book, paper back, 25 cents post-paid. It gives a running history of the life and death of this great hero of "the Lost Cause," together with funeral services, comments of the press from all parts of the country, etc.

Dr. McGuire's Prize of $100 for Medical Society of Virginia.

Dr. Hunter McGuire, of Richmond, Va., who has received all the honors within the gift of the Medical Society of Virginia, authorizes us to announce that he will give a *Prize of One Hundred Dollars* for the best original practical paper on the *Pathology, Diagnosis and Treatment of Chronic Cystitis in the Male*, that may be offered during the Session of the Medical Society of Virginia, at Rockbridge Alum Springs, Va., about September 1st, 1890. This Prize is open to every Fellow of the Society—Honorary as well as Active—or whoever may, in the meantime, become a Fellow of the Society. All papers submitted for this Prize are to become the property of the Society, and to be disposed of according to its pleasure. The paper receiving the Prize is to be contributed to the *Transactions* of the Society. The right of declining to award the *Prize*, for want of merit, or other commonly sufficient cause, is of course reserved. The details of the manner of presenting papers, and the rules to govern the awarding of the Prize, will be published in the April number, 1890, o fthe *Virginia Medical Monthly*—the object being to determine on a perfectly impartial manner of selection of the Essay deserving the award, and also to afford the greatest amount of good possible to the Society itself.

The Eighth International Medical Annual for 1880

Is announced for early delivery. The Prospectus gives promise of excellencies surpassing former editions. Its thirty-seven editors in the several departments are to give a summary of New Remedies alphabetically arranged; also a resumé of New Treatment in Dictionary form; with references to the Medical literature of the world pertaining to the year's progress of medicine. Such a practical and helpful volume is of inestimable value to the medical profession. In one volume of about 600 octavo pages; price, $2.75, post free. E. B. Treat, publisher, 5 Cooper Union, New York.

Mr. E. Merck

Has found his American business to be so rapidly growing that he has been compelled to occupy a house adjoining his former New York warehouse and office—now two very large buildings—71 and 73 William street. He has put these buildings in connection with the *long distance telephone system*, as well as the local. In short, Mr. Merck has established his house in New York as one of his *permanent* establishments.

The Kentucky School of Medicine, in Louisville.

Is the pioneer Spring and Summer School of Medicine in the United States, and has the largest patronage of any of the Colleges of this class. We have often wondered how it was that Medical Colleges which have Winter Classes alone could give such lengthy vacations as seven and eight months. Medicine is a science that is to be studied as well in the Spring of the year as any other Season; and there is now no excuse for one who is kept from other Colleges by reason of their Spring and early Summer vacations not to continue his College studies there. The Kentucky School of Medicine, fully equipped in every way, with a corps of excellent Professors, with graduating authority, etc., and in a most healthy and beautiful city, precisely fills the want. Write to Dr. Wm. H. Wather, Louisville, Ky., for full information.

Dr. Ephraim Cutter, of New York, N. Y.,

In response to invitation, will exhibit before the Richmond Medical and Surgical Society, Thursday night, January 23rd, some microphotographs, illustrating the morphology of sputum and foods, and will direct his remarks especially to those illustrations, etc., that bear on the subjects of rheumatism and asthma. Members of the regular profession generally—visitors as well as residents—are always welcomed; but, on this occasion, all microscopists, etc., are also invited. While Dr. Cutter owns the most costly objectives in the world, his work all aims at simplicity, and to help the general practitioner.

The Memorial Window to the Late Prof. James L. Cabell,

At the University of Virginia, is being prepared, and will bear an inscription chiefly indicative of his relationship to the University. We wish it could bear the record of many of his other important noble works, so as to perpetuate, in gilded letters, for coming generations, his history, so as to show that he belonged to the State, to the Nation—to humanity at large no less than to the University of Virginia.

Dr. R. C. M. Page, of New York City,

Was elected Vice-President of the New York Academy of Medicine on January 2nd, on which occasion the principal paper was on "Surgical Treatment of Pentonitis," by Dr. W. Gill Wylie.

New Orleans Polyclinic.

We would be glad to know that the advertisement of the New Orleans Polyclinic is attracting the attention of our readers. A commodious building, with all the surroundings well suited for the Polyclinic course, has recently been purchased, and the Faculty is looking forward to greater success than ever. This institution is geographically well suited to the location of Southern doctors, while the opportunities of the great Charity Hospital, and the special ability of members of the Polyclinic Faculty, make the New Orleans Polyclinic the very thing long needed by doctors in the Southern States who wish to gain the advantage of hospital tuition regarding diseases they are so apt to meet in their practices.

Statistics of Leprosy in the United States.

In view of the general impression that leprosy is spreading in this county, it is desirable in the interest of the public health, to obtain accurate information upon this point. The undersigned is engaged in collecting statistics of all cases leprosy in the United States, and he asks members of the profession to aid in this work by sending a report of any case or cases under their observation, or coming within their knowledge. Please give location, age, sex and nationality of the patient, and form of the disease—tubercular or anæthetic; also any facts bearing upon the question of contagion and heredity.

Address Dr. Prince A. Morrow, Editor, *Journal of Cutaneous and Genito-Urinary Diseases.* 66 West 40th Street, New York.

Dr. Joseph S. De Jarnette

Very recently Resident Physician at the Old Soldiers' Home near Richmond, Va., has been elected one of the Assistant Physicians to the Western Lunatic Asylum, Staunton, Va., to fill the vacancy caused by the death of Dr. Weir. Dr. De Jarnette passed the Medical Examining Board of Virginia, and has so faithfully and so creditably attended to duties assigned him, that we predict he will fill his part in his new field of labor.

Richmond Medical and Surgical Society.

Dr. George Ben. Johnston has been elected President for the year 1890, and Dr. C. L. Cudlipp,. Secretary The meetings of this Society are becoming more and more useful to the profession.

Transactions of the Twentieth Session of the Medical Society of Virginia.

This volume, issued during December, 1889, contains over 360 large octavo pages of profitable and interesting matter. A few of the volumes of *Transactions* of other State Societies, published during the year, may be a little more pretentiously issued; but we know of no Society Transactions that furnishes a better showing of Contents. If any Fellow of the Medical Society of Virginia has failed to receive the copy sent to his P. O. address before January 1st, 1890, he should write at once for it to the Secretary, Dr. Landon B. Edwards, Richmond, Va. The session at Rockbridge Alum Springs, Va., about the first of next September, promises to be a great success. The President, Dr. Oscar Wiley, of Salem, Va., is hard at work to make it an excellent session.

The Delay in Issue of this January Number

Has been due to accidental circumstances, which we hope will not again occur in our history. It is to be hoped that subscribers to whom bills are being mailed will respond promptly to them, and will return other subscriptions with their renewals. We hope to continue to merit the favors of the medical profession, as we propose to keep this the representative Southern medical journal.

New Members Virginia Medical Examining Board.

To fill the vacancies occasioned by the death of Dr. Z. J. Walker, and by the resignation of Dr. Hugh Stockdell, the Executive Committee of the Medical Society of Virginia nominated Dr. Robert Glasgow, of Lexington, Va., and Dr. S. W. Budd, of Petersburg, Va. These gentlemen were duly commissioned by Gov. Lee during the month of December, 1889.

Virginia Gubernatorial Medical Appointments.

Gov. McKinney has appointed Dr. M. D. Hoge, Jr., of Richmond, Va., *State Vaccine Agent*, to fill the vacancy occasioned by the death of Dr. George W. Harris. He has also appointed Dr. ——— Nash, of Farmville, Va., *Surgeon to the Virginia Penitentiary*, in place of Dr. Watson, removed.

Our Advertising Department

Continues remarkably full. We want our subscribers to patronize our advertisers. We believe they are all respon-

sible parties, honorable manufacturers and merchants, and represent a sufficient variety of products to supply every possible special demand of the doctor.

Who was Your Great Grandfather?

The *Detroit Journal* desires to receive, by postal card, the address of all living male and female descendants of Revolutionary officers and soldiers of 1776, and, when possible, the name and State of the ancestor. Wonder if W. H. Brearley, proprietor of the *Detroit Journal*, is contemplating a raid upon the national treasury?

Medical and Surgical Memoirs by Joseph Jones, M. D.

Volume III—in Two Parts—of this work of great research, "Containing Investigations on the Geographical Distribution, Causes, Nature, Relations, and Treatment of Various Diseases—1855–1890," has just been received as we were giving the last page to press. The work will be noticed in a late number. It will be sent for $8, received by Dr. Jones, Box 1500, New Orleans, La.

The Ophthalmic Review

Begins its new volume 1890 with an American Editor, Dr. Edward Jackson, of Philadelphia, who succeeds Dr. James Anderson, of London. It will hereafter contain original papers from American as well as English Ophthalmic Surgeons, with a monthly list of all papers on ophthalmological subjects, published in this country or in Europe, and full reviews of the most important of them. Price, $3 a year. Address orders to Messrs. P. Blakiston, Son & Co., Medical Publishers, Philadelphia, Pa.

No License Required to Practice in New Hampshire.

The Supreme Court of New Hampshire has recently rendered a decision to the effect that the law in that State requiring a license for the practice of medicine or surgery or any of the branches thereof is unconstitutional. This puts the profession of medicine in New Hampshire on the same footing as preaching, teaching, etc., in other States.

Patent Medicine Proprietors Responsibility in Georgia.

The Supreme Court of Georgia has decided that the proprietor of a patent medicine is liable for damages for injury done to any person who takes the medicine according to directions.

Obituary Record.

Dr. George William Harris

Died at his residence No. 7, North 3rd street, Richmond, Va., on December 24th, 1889, in the eighty-seventh year of his age.

Dr. Harris was born February 24th, 1802, near Goochland C. H. He entered Hampden Sidney College in 1822, from there going to the medical schools of Baltimore and Philadelphia, from which latter place he graduated in 1826. After finishing his scholastic studies, he determined to try his fortunes in the "far West," and accordingly located for several months in the most Western town of that day, Nashville, consisting of about three hundred inhabitants. He remained there only a few months, and returning to his native county, entered at once upon the practice of medicine, and making quite a reputation at the outset by his successful treatment of scarlet fever, which was then raging almost like an epidemic among the slaves of that section. He married in 1832, Miss Lucy Gilmer Grattan, a sister of Peachy R. Grattan, Esq. They had no children. He moved to Richmond in 1867, and continued the practice of medicine till within a few months of his death. He held the position of State Vacine Agent for sixteen years, which he filled most acceptibly to the public and profession. He was the highest type of a Christian gentleman; no one ever thought of questionating his sincerity and genuine goodness; his directness, his candor, his integrity, his benevolence, and his naturalness of manner, were recognized and appreciated by all.

Dr. Lewis Hall Sayre

Was found dead in his bed, at his home in New York city, January 3rd, 1890. Autopsy revealed organic heart-disease as the cause. He was the eldest surviving son of the world-renowned surgeon, Dr. Lewis A. Sayre, and was himself rapidly rising to a rank scarcely less eminent. He was born in New York city in 1851, and graduated in Medicine from Bellevue Hospital Medical College in 1876, in which College he was Assistant Professor of Orthopædic Surgery at the time of his death. He leaves a widow and three children. He was estimable in character, genial in disposition, hospitable in courtesy, and popular with the profession and people. His family have our sincere sympathies in their great bereavement.

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Original Communications.

ART. I.—Fatty Degeneration of the Heart.*

By ROBERT T. EDES, M. D., of Washington, D. C.

LATE PROFESSOR OF MATERIA MEDICA, AND JACKSON PROFESSOR OF CLINICAL MEDICINE IN HARVARD UNIVERSITY, ETC.

Fatty degeneration of the heart is not only interesting pathologically, but of the highest practical importance. It is obviously too large a subject for a single paper, and, in many respects, too well understood to make it desirable that I should do more than touch upon some of the points. I should like, however, to advert to a few which have for me a special interest, or which may be illustrated by cases that have come under my own observation.

This degeneration in the fibres of the heart-muscle is, or

*Read before the Medical Society of the District of Columbia, January 15th, 1890.

NOTE BY EDITOR.—Reference to the January No. of this journal will show that in November, 1889, Dr. Edes presented to his District Society Sections I and III of a valuable paper entitled "*Some Organic Non-Valvular Diseases of the Heart and Arteries.*" Section I was on *Atheroma, Arteritis Deformans, Arterio Sclerosis, Aortitis.* Section III was on *Diseases of the Cardiac Plexuses and Ganglia.* Section II, on *Fatty Degeneration of the Heart*, was reserved for a special consideration in the paper now presented.

course, to be strictly distinguished from a deposit of fat upon the surface or between the fibres. Both these affections were described and distinguished by Quain. Both have been known as "fatty heart," and they are not infrequently associated, probably by the supervention of the degeneration on the more superficial lesion.

Owing to the ambiguity of the term "fatty heart," I have avoided it wherever it could give rise to confusion, and have used "fatty overgrowth," "fatty deposit," or "obesity of the heart" when I have had occasion to allude to it; and used that which is found in the title of my paper for the condition which it strictly describes, and which alone I have taken for my subject.

The *anatomy of fatty degeneration* is simple and well known, while its chemistry is very much the reverse. It is most frequently found in the left ventricle, while the fatty overgrowth is more common in the right. In many cases it has a strictly local origin in the atheromatous degeneration and plugging of the coronary arteries. These are the cases which are liable to rupture of the heart. It is highly probable that, in many cases, the change which is visible to the microscope is a somewhat advanced stage of more subtle disorganization, not anatomically manifest, but displaying itself in functional impairment.

A very interesting series of observations upon degeneration of the heart-muscle have been made within the last few years by several French authors, which do not seem as yet to have found their way into the text-books. (Renaut et Landouzy, *Comptes Rendus Soc. de Biol.*, Paris, 1877; Durand, *These de Lyon*, 1879; Colrat, *Lyon Medicale*, Oct. 26, 1879; Chalot, *These de Paris*, 1880.)

In certain cases, corresponding clinically closely to those where a failure of compensation takes place from valvular, and sometimes from general disease, and also in some apparently nearly healthy, the heart-muscle is found to break up with unusual and abnormal ease into irregular quadrilateral fragments which may have, but by no means necessarily or frequently, undergone also fatty degeneration.

The lesion depends upon a weakening of the cement which binds together the constituent cells of the muscle fibres. This is apparently sufficient to weaken the muscle, and gives rise to a set of symptoms which it would be impossible to distinguish from those due to fatty degeneration. In fact, it is supposed by these observers that many cases diagnosticated even after death, as fatty degeneration, but without microscopic inspection, on the basis of color and consistency, have been really instances of this lesion, and that the "faded leaf appearance," etc., of pathologists has often referred to this "segmentation," as they call it, and not to fatty degeneration, as such appearances are usually interpreted. The mistake is then more likely to be made, since the yellow pigment granules found with the segmentation are not easily to be distinguished from the fatty.

This is another direction in which the pathological anatomy of the heart may well be extended. Clinically, it cannot be considered of so great importance to make the distinction, if the segmentation owes its origin to nearly the same causes as fatty degeneration, is liable to develop into it, and produces similar symptoms.

As regards *causation*, the cases of fatty degeneration may be divided into several groups. This lesion is one of the results of the failure of the heart-muscle to compensate, or, as we may say, of ineffectual over-work, or of over-work carried on under conditions of insufficient nutrition.

When the heart is called upon for extra exertion, as by its orifices being obstructed by diseased valves, or by being obliged to force the blood through an inelastic tube, as spoken of in the first part of this paper,* or by being obliged to carry the burden of its own obesity, there is a period, provided the general nutrition is good, during which the muscle responds to the call by an increase of development, just as the biceps grows by the use of the hammer or the oar. When, however, the work becomes too great, the compensation can no longer take place, and the muscle degene-

*See January No., 1890, of this journal, near bottom of page 783.

rates. We may find a parallel to this change of behavior, in the fact that in some forms of progressive atrophy of the voluntary muscles the affection begins in those muscles which are subjected to the most constant use. The condition is less frequent in the voluntary system, it is true; but it is to be remembered that the heart is one of the very few muscles which gets no rest. The break-down will naturally come the earlier the more the general nutrition is impaired.

Fatty degeneration of the heart is frequently found in connection with general diseases of two kinds—first, infectious, as continued fevers and pyæmia; and, second, wasting, as phthisis. It may be a part of a general fatty degeneration, involving liver, kidneys, stomach tubes, and, perhaps, nerves, which takes place as one of the effects of some poisons which disorganize the blood, and, in particular, phosphorus and sulphuric acid, and more slowly, arsenic. In a case under my observation, extreme fatty degeneration was found fifty-six hours after the ingestion of phosphorus. Tardieu speaks of forty-eight. Ether and chloroform have been reckoned as among the agents capable of inducing rapid fatty degeneration.

Nothnagel found (*Berl. Klin. Woch.*, 1866, p. 31) that in all the cases in which he administered to rabbits ether, and in one case in which chloroform was given, bile pigment, and in some cases blood and casts were found in the urine; and when the cases resulted fatally, fatty degeneration of the heart and liver and, to a less degree, the kidneys, was present. These changes were least marked when the anæsthetic was given by inhalation, more when injected under the skin, and most when given by the stomach. The degeneration might take place in five hours.

Sabarth gives forty-eight cases where chloroform is supposed to have been the direct cause of death. In only a few of these was there a complete or careful autopsy, yet in nine there was more or less distinct degeneration of the heart and liver.

These cases suggest, it is true, the inquiry whether it is possible that the anæsthetic may have caused the fatty heart

which is usually considered to have been rather a condition of unusual susceptibility to the toxic action of chloroform. But this hypothesis has but little foundation except experiments on lower animals; for, in the first place, human deaths from chloroform have mostly been too sudden for even the short time allowed by Nothnagel for the fatty change to take place; and secondly, an enormous experience with ether, which, according to the same observer, is quite as active in this direction as chloroform, has shown conclusively that no such accident is to be feared even in its prolonged administration for surgical purposes lasting over several hours.

I saw several years ago a strong, well-nourished, middle-aged man, who was kept for nearly a week almost constantly under chloroform on account of the intense pain of the passage of several hundred renal calculi. When I saw him he was in a condition of acute mania much resembling delirium tremens, violent and suspicious. This lasted several days, and was undoubtedly due to the chloroform, but his recovery was perfect, and there were not then or since any symptoms leading to a suspicion of fatty degeneration.

It seems to me, speaking clinically, and leaving Nothnagel's rabbits out of sight, that chloroform is not to be looked upon as the cause of the fatty degeneration found in some of the cases of a fatal result. I hope I shall not be thought cynical, if I suggest that such an extremely unpleasant accident as a death from chloroform may have the effect of sharpening the senses of the pathologist, and lead to the recognition of a degree of fatty degeneration which would otherwise escape attention. Fatty degeneration is undoubtedly a condition which would render the heart more susceptible to the action of chloroform, especially if forced or given suddenly, and one which undoubtedly adds to the dangers of this dangerous drug, and this I believe to be true of some other narcotics of which I shall mention some instances later.

That there is, however, no specific relationship between the action of chloroform and death from fatty degeneration

of the heart is well shown by the following case of Dr. Balfour. A woman, æt. eighty, who had long suffered from angina pectoris, was for the last few weeks of her life almost constantly under the influence of chloroform. She died at last, not suddenly, but worn out by age and sufferings. The aorta was dilated and the coronary arteries almost blocked. The heart was thin walled and dilated, but of a pale yellowish color, soft and thoroughly fatty. Chloroform in her produced no dangerous symptoms, and, far from shortening her days, seemed to prolong them. The apex beat was tolerably firm to the last.

Lewin (*Incidental Effects of Drugs*) says that fatty degeneration of the heart must be regarded as one of the most important adjuvants in the causation of death by this agent, but agrees with Kappeler in attributing to it only a relative and not absolute danger.

In regard to some less frequent forms of poisoning, Renaut (*Lyon Medicale*, 1880, xxxiii., 77.) reports a case of steatosis of the heart, liver, and kidneys in a man who had attempted to poison himself with carbonic oxide; but as there was also atheroma of the aorta, the conclusiveness of the case, as to the nature of the toxic influence of this gas, is considerably diminished.

Alcohol is too well recognized by all authorities to need more than a brief mention. Fatty degeneration of the heart, of the kidneys, and of the liver, and atheroma of the great vessels, probably constitute an important part of the "Säuferdyscrasie" of the Germans, the "soaker's dyscrasia," which coincides with the well known want of resistance of old soakers to surgical injuries and to acute disease. Instances are only too numerous. One of the most remarkable is a case reported by Blachez (*Gaz. des. Hop.*, 1868, p. 39) of a girl aged sixteen addicted to the use of alcohol since the age of six. Her heart was large, the aorta insufficient, with granulations on the edges of the valves; the muscle was thickened with very apparent fatty degeneration. Liver hypertrophied and fatty, but no sensible alteration of the kidneys.

Somewhat akin to these conditions where the blood is dis-

organized by some foreign substance, are those where degeneration of many important organs results from their being supplied for a considerable time, not with a vitiated but with an impoverished blood—*i. e.*, where degeneration of heart, liver, and kidneys results from anæmia. Such degeneration may take place rapidly from a single large hæmorrhage, but more frequently from a long continued drain. It is probable that this takes place, in greater or less degree, in many cases where it never becomes anatomically demonstrable, as there is no reason to doubt that a considerable amount of wasting of the heart muscle may be recovered from like that of any other, provided the general nutrition can be restored, and the greatest possible amount of rest obtained before the lesion is too far advanced.

The distribution of the degeneration among the various organs may vary according to the other factors present in addition to the anæmia, so that malnutrition and a comparatively slight lesion, valvular or arterial, may throw nearly the whole burden on the heart.

In idiopathic anæmia a general fatty degeneration is one of the most common post mortem appearances, as shown in some of the cases reported by me to this Society last winter.

The following are cases resulting from simple anæmia:

I.—L. B., single woman, æt. 48, has been living alone, with irregular and insufficient nourishment. For the last year her menses have been irregular and at times rather profuse, just how much so nobody knows exactly, owing to her reticent habits, but she spoke of it herself, although at the time of my first visit and afterward there were but a few drops. Her hair was grey, pupils dilated, sclerotics pearly, skin yellow, but she was neither emaciated nor dropsical. She had just had a little attack of vomiting and diarrhœa. The heart's impulse was strong, and there was a systolic murmur over the aortic valves extending to the right of the sternum. Pulse 80. A large hæmorrhoid came down, causing distress, but no bleeding. A uterine polypus was discovered.

About ten days after she was first seen, a venous thrombosis was developed in the right arm, which became swollen, hard, and white, and the jugular vein could be felt as a cord under the skin. She died three days after.

Autopsy.—Body well developed, fat, very pale and yellow.

Muscles small but red. Very small amount of blood throughout. Small amount of clear fluid in the pleuræ and pericardium, lungs œdematous posteriorly. Heart with a good deal of fat exteriorly, not enlarged, slightly adherent to the pericardium near the base, but no white patches or roughness. Valves normal. Muscle very pale, yellow, friable, fatty by microscope. Spleen rather large, moderately soft. Kidneys of full size, smooth, yellow, very fatty by microscope. Uterus rather large, with a polypus hanging from the os, with the end soft and reddish. At the inner end of right subclavian vein, a greyish, dull white clot. Veins in the axilla filled with hard, homogeneous, dark-red clots. Inner surface of vein smooth and shining.

Case II—A man, æt. 28, a year before entering the Boston City Hospital, vomited a dark brown fluid, and several times a day, for some time afterward, there was vomiting of the same character. He had dull epigastric pain, and got white and thin. There was a systolic souffle and a venous hum in the neck. In April, the heart sounds were noted as of fair strength, and on the fifteenth he died. There was ulceration of the stomach and fatty heart.

Many similar cases can be found in literature. Uterine hæmorrhage seems to be one of the most frequent forms, probably for the reason that it is more likely than almost any other to be allowed to go on without being treated.

The following is of interest, as showing the effects of a single profuse hæmorrhage:

A woman, previously healthy, six weeks before death had a profuse hæmatemesis. She became exceeding anæmic. There was a murmur with the first sound of the heart. A scar of an ulcer was found in the wall of the stomach, and the muscle of the heart was in a condition of fatty degeneration.—Dr. Joseph Coats, *Glasgow Medical Journal*, 1878, X. 283.

It is difficult to place the following case, which in its results, closely resembled the anæmic cases just described, but any cause of this kind seemed to be entirely wanting. It is certainly a rare one. It is abridged from the detailed report of Dr. G. J. Arnold (*Boston Medical and Surgical Journal*, June 22, 1871.):

A clergyman, æt. 42, of robust but not corpulent figure, regular and abstemious habits, complained ten years before

of disagreeable sensations in his head. In 1866, he had an extreme degree of muscular weakness and prostration, and also an extraordinarily powerful effect from half a grain of opium during an attack of simple diarrhœa. From 1867, he had several attacks of vague character, feeling "not exactly dizzy, but as if going to be;" also, attacks of fainting when preparing to go to church, and also after exercises. The cardiac impulse had always been obscure, with a corresponding feebleness of the radial pulse.

In March, 1870, he was attacked with a sore throat, prevailing at the time, followed by acute rheumatism, from which he seemed to be improving, when he was seized with a sudden acute and very severe pain in the left side and was soon thoroughly collapsed. From this he partially recovered, but died in a week, immediately after receiving an enema.

The autopsy, by Dr. Swan, showed a heart with dilated ventricles, thin walls, pale, flabby, friable muscles, which the microscope showed to be in a condition of advanced fatty degeneration. There was more than the usual amount of fat upon the surface. The left kidney was enveloped in a large clot and contained two nodules, one looking as if composed of layers of decolorized fibrin, and the other consisting of a firm black coagulum, undoubtedly the source of the hæmorrhage. Both kidneys were soft, yellow, and fatty. The liver was fatty. There were traces of atheroma in the abdominal aorta, but the renal artery was healthy.

We find among the causes of fatty degeneration of the heart assigned in the text books, cancer, but it will at once suggest itself that cancer is a wasting disease, and that it may be in this way and by the production of anæmia that it acts. Two cases led me to inquire whether it was possible that there should be any more direct and specific relationship between the two affections, and whether it might be that the "cancerous cachexia" consists partly in the fatty degeneration of various important organs.

I may as well say at once, that a very limited search among cases and tables of cancer convinced me that there

is no necessary relation of the kind. It is certainly true, however, that cancer often becomes a constitutional disease, attended with extreme anæmia and often with fatty degeneration, before the local growth has established a drain upon the system in any obvious or discoverable way. The two cases I refer to are the following:

A lady, æt. 47, consulted me in May for supposed piles, which, on inspection, appeared to be small cancerous masses around the anus, my opinion being confirmed on consultation by Dr. Cushing and Dr. Cabot. In October, she had more pain and took small doses of chloral and morphia. Soon after, she began to have small frequent discharges. She was etherized and a finger passed into the anus, encountering a hard ring about an inch above, through which two fingers were afterward passed with some force and a feeling of tearing. She complained of great pain on coming out of the ether, but passed a tolerably comfortable night. Then she was unable to pass water, which was not drawn until the following afternoon. It was drawn twice more, and then she passed it herself. She had several long sleeps, and not a great deal of pain. One sleep lasted thirty-seven hours, after which she partially aroused and went into another of fifty-two hours, which terminated in death. There was no stertor, the pulse about 90, the mouth dry, and the mind a little wandering.

After death there was found a hard mass involving the rectum and posterior wall of the vagina. The bladder was darkly congested, the kidneys were large, yellow, and very fatty under the microscope, with hemorrhagic infarctions. The liver was flabby and very yellow. Owing to darkness and want of time, the heart was not examined, but there is little doubt from the state of the other viscera, that it, too, was in a condition of fatty degeneration.

In the latter part of December, 1877, I made an autopsy for my friend Dr. Fifield, on the body of a lady from whom he had amputated a breast some time before for cancer. She had had vomiting and frequency of micturition.

The body was very fat. There were nodules near the cicatrix in the breast, some in the liver, and a good many small ones on the posterior surface of the lower lobes of both lungs. The urine drawn after death contained a large amount of irregular epithelium and casts. The kidneys

were fatty and granular. The heart was soft, yellowish, and moderately fatty.

In thirty-three cases of my own and others of cancer of various organs, the heart was fatty in eight and slightly fatty or doubtful in three. In five, brown atrophy of the heart is mentioned. In some of these there had not been enough discharge or interference with the function of special organs to impair the general nutrition to the extent of emaciation, although anæmia may have been present.

In other summaries of cases, either of cancer or of fatty heart, such as those of Ponfick (*Berl. Klin. Wochs.*, 1873, p. 3), of Quain (*Med. Chir. Trans.*, xxxiii., 121), of Wagner (*Verhand. Med. Ges. zu Leipsig*, 1863–64, 1), and of Sibley (*Med. Chir. Trans.*, xiii.), the coincidence of the two lesions is not frequent enough to have any significance.

Fenwick, however, (*Brit. Med. Journ.*, 1887, 11, 1280) says that he has found cardiac degeneration present in a considerable proportion of cases of large abdominal tumors. He speaks of twenty-two cases of sudden death in abdominal tumor in which it was present. The connection here is probably through increased labor thrown upon the circulation by the pressure, and possibly impaired nutrition from the same cause. Sudden death under these circumstances may be the result of too sudden a removal of the pressure.

The next two cases, although, as will be seen, the rest of the circulatory apparatus was not absolutely free from disease, can be considered as being as nearly idiopathic as any we are likely to meet. The existence of true idiopathic fatty degeneration of the heart is denied by some writers.

Case: A lean, scrawny old woman, who looked as if she had a hard struggle with life, came to this city for a pension and, being taken sick, entered the Garfield Hospital. She had œdema of the feet and legs, and also extending up the back. She complained chiefly of pain in the left side.

She had several attacks of syncope, usually at night, during which her temperature sank several degrees below normal, and it was thought that she would die in them. The pulse was very weak, the heart sounds were at times very feeble, so that the first was with difficulty perceptible. Oe-

casionally a very slight short systolic murmur was heard at the apex. The urine showed nothing decisive.

At the autopsy there was found in the left pleura two quarts of serum, with loose adhesions and a small amount of fibrin. The lower lobe of the lung on this side was solid and dark; the upper crepitant. Right lung almost universally adherent, posteriorly congested, anteriorly crepitant. Heart large, not hard. Pulmonary artery and aorta rather large; slight atheroma of aorta, especially near opening of anterior coronary artery. Some hard nodules at the base of the aortic valves; otherwise the valves were healthy.

Heart muscle markedly fatty by the microscope.

Case: An unmarried lady, somewhat but not extremely stout, æt. 68, had had pain and frequency of micturition for some years. She had never had uterine hemorrhage. Last August she became faint when away from home and had to return in a carriage. Since that time she has had increasing weakness, pain in the lower part of the thorax on the right side, chiefly on moving, dyspnœa on exertion. Pulse irregular (when seen in November) and somewhat, though not extremely weak. Crepitation at the base of the right thorax, and, toward the last, very slight œdema of the legs. The urine was not copious, and contained a trace of albumen with some transparent casts, and many uric acid crystals. The opinion was expressed that the heart was the organ principally at fault rather than the kidneys, which had been suspected from the previous probable history of cystitis and from the albuminuria. She died gradually.

Autopsy: Body fat, right lung œdematous, left partly hepatized with fibrous thickening. Pericardium contained liquid blood, for which no source was found after careful search.

The heart was very flabby, thin, and fatty. The aorta was slightly atheromatous. The liver was normal, but the gall bladder contained gall stones. The kidneys were flabby and yellowish, with the capsules slightly adherent, and were fatty by the microscope. The uterus contained small fibroids and submucous polypi.

There are certain accidents which are associated, more or less, closely with general atheroma, or with fatty heart, or with both. Although I have spoken of these two affections as two diseases, more or less distinct from each other, as, of course, they are anatomically, and, in many cases, clinically, yet they are often met with together, and are really parts of

the same affection. This is because, in the first place, certain common causes tend to produce both, and secondly, because fatty degeneration is an extremely frequent result of atheroma, if it lasts long enough.

Thrombosis of important vessels may take place with either one or with the combination of these two lesions in more ways than one. A thrombosis is very likely to form in atheromatous arteries, because one of the roughened spots is very likely to form a point for the first deposit of fibrin to take place, which then increases. If the heart be weakened, the coagulation takes place all the more readily. In many cases of thrombosis, there is probably still a third factor in the form of some undefined blood change. Thus, cerebral lesions may result from plugging of the arteries, at any point from the bifurcation of the carotids up.

The diagnosis of this condition may be very simple, but, if symptoms are not well marked, there may be difficulty in deciding whether they are due to thrombus or to some less serious and less permanent lesion. A general atheroma of the cerebral vessels may, by the obstacles it offers to a free circulation, and without actual plugging, lead to a very curious set of symptoms, of which I should, if time permitted, like to relate an example.

Thrombosis of the veins seems to be a result of the slowing of the blood current consequent upon feebleness of the heart, together with some other less well understood factor. The case I have reported of anemia and fatty degeneration consequent upon a uterine polypus is an instance.

Thrombosis of the heart itself. A case from which I showed a specimen some weeks ago, was a somewhat complicated one, probably of this kind, in which, however, it would be difficult to place all the symptoms in exact relation with the different lesions.

A colored man, age sixty-five, I found in the Garfield Hospital in the beginning of October. He was suffering from pain in the chest, œdema of the feet, and dyspnœa. His pulse was feeble. At that time I found a creak over the whole surface of the heart and synchronous with its pul-

sation. This I supposed to indicate a pericarditis, but it disappeared in a few days, and there were no indications of any material roughening of the surface when the autopsy was made. He had frequent attacks of severe pain and distress, usually at night, in which his pulse became very feeble, and it was thought he would die. He was somewhat better for a time under the influence of very small doses of morphia, and finally died quite suddenly.

There were found several quarts of turbid yellow serum in the peritoneal cavity. The kidneys both contained extensive old embolic infarctions. One of them was shown to the Society with the embolus in situ.

Both lungs were universally adherent, more strongly toward the base. Very little serum in the pleuræ.

The heart was enlarged. At the tip of the right auricle, there was a mass of dense partly decolorized thrombus. In the left ventricle, near the apex, there was a dense firm thrombus nearly as large as a hen's egg, firmly adherent, with its base interwoven among the columnæ carneæ. The muscular substance of the left ventricle was in a condition of fatty degeneration, everywhere manifest, but at the apex very extreme—there being little remaining of that part which looked like muscular structure. The muscle at the seat of the thrombus consisted, under the microscope, of nothing but irregular fibres and rounded masses of yellowish globules. There was no extensive arterio-sclerosis, but there was probably some, although it is not recorded. The coronary arteries, however, were not atheromatous. The thrombus itself was fibrinous.

It is probable that there was here a weakened and dilated heart, which underwent fatty degeneration, which, for some unknown reason, was especially intense at the apex, where the diseased condition combined with the feeble blood current to cause the deposition of fibrin. The clot was evidently a somewhat old one, but I do not see how we can say positively whether the attacks of distress were due primarily to the fatty degeneration or to the gradual formation of the thrombus. The former seems to me the more probable, though the presence of the thrombus during the latter part of life undoubtedly contributed to the dyspnœa.

Fatty degeneration of the heart, *as the sole cause of sudden death*, is probably somewhat less frequent than is ordi-

narily supposed. In poisoning by phosphorus and in anæmia with fatty heart, death is rapid, perhaps in proportion to the rapidity with which the process goes on, but not often absolutely sudden in the sense of occurring within a few minutes in a person in comparatively good health, or, at any rate, not supposed to be in immediate danger.

If, however, we take cases in which there is arterial degeneration in connection with the cardiac lesion, the state of things is very different, and this association is a very common one to be found after a death of this kind. The influence of the fatty degeneration is two-fold. In the first place, atheroma of the coronary arteries leads to a local fatty change, and softening, and rupture. So far as I am aware, rupture of the heart, setting aside traumatic cases, is invariably the result of a localized softening from fatty degeneration of this kind.

In some cases, it is probable that the change in the coronaries, combined with an embolism or thrombosis, may interfere with the nutrition of the heart-muscle sufficiently to cause death before actual fatty change has had time to take place.

The most common form, however, in which sudden death results from the combination of fatty degeneration and atheroma of the aorta is that of which I have given several instances. The chronic arterial disease is followed by hypertrophy, and, after a time, dilatation and degeneration of the muscular walls of the heart, which then have to do their work with a constantly-decreasing power under an increasing load, until the margin of reserve force has become very small. Then if, by some sudden exertion, perhaps a very slight one, more work is called for, the equilibrium is disturbed in the wrong direction, and the muscle can no longer respond.

In examining a number of cases, to find how common sudden death may be as a result of fatty degeneration without other arterial or cardiac lesion, I find that the data in regard to atheroma are too scanty to make the search yield valuable results, for it is more than possible that its exist-

ence may be, and has been, overlooked when present. It may be said, however, in very general terms, that, in looking over a series of cases of fatty degeneration, one finds a large number of sudden deaths. Of these a large proportion die from rupture, and of the remainder, another large proportion are found to have also atheroma of the aorta, while among the residue, comparatively few are stated to have fatty dgeneration and healthy arteries.

I have already said that it seemed to me possible that fatty degeneration of the heart constituted an *element of danger in regard to some other drugs*, as well as to chloroform. The case of cancer of the rectum, already reported, which died two or three days after the etherization, is, I think, one. Paget reports a case, of which I borrow the account from Dr. Ormerod's article: A woman, aged sixty, was supposed to have been killed by morphine given for the cure of spasmodic pains, to which she was subject. With the exception of these pains and increasing obesity, she was healthy. Four hours after taking morphia, she was awake and talked sensibly. She died in her sleep, and the lesion found was fatty degeneration of the heart.

In the case of the clergyman, already reported, who died with general fatty degeneration and hæmorrhage around the kidney, and where it is not unreasonable to suppose that the process had been going on for some time, it was noted that on one occasion he suffered very unusual effects from the use of a moderate dose (half grain) of opium.

The following case occurred under my own observation: A lady, age seventy-two, very corpulent, suffered during July and August, 1879, from palpitation and dyspnœa, with some bronchial symptoms. The urine was rather scanty, and contained a few transparent casts, but no albumen. The sounds of the heart were muffled, but there were no distinct murmurs. Some of the pulsations were not strong enough to reach the wrist. A note, unfortunately not dated, but which I presume to have been the last taken, during this attack, says: "Appetite better; sleeps a good deal; can go upstairs without stopping; takes the 10 drops of tr. opii deod. only once a day. Pulse, 88, not quite regular in force,

but no beats omitted." Some time during this period she took $\frac{1}{24}$ths of a grain of morphine without unfavorable results.

The next March I found her with renewed dyspnœa and an irregular pulse. She was sitting up, and complained of intense sleepiness, but also of entire inability to go to sleep on account of restlessness and distress. I gave her subcutaneously eight milligrammes ($\frac{1}{8}$ gr.) of morphine, which gave great relief, so that she went to sleep at once The sleep deepened, and became profound coma, with a respiration of over twenty and a very irregular pulse. She died in eight hours.

The most noticeable point in the case, beyond the smallness of the dose, which one can hardly doubt having been the immediate cause of the fatal result, is the rapidity of the respiration, differing from its usual character in morphine poisoning.

The *diagnosis* of fatty degeneration is generally admitted to be not always easy. It may be found where hardly suspected, and, on the other hand, be absent when many symptoms point strongly to its presence. This, however, does not point to quite so bad a state of affairs as might at first sight appear. The cases where it has not been suspected are very likely to be those, not where symptoms have not been present, but simply where they have not been complained of. And the other class, where it has been wrongfully suspected, have had some other form of weakened heart, in which no harm has been done in treating as fatty.

In a large number of cases, this condition can be inferred with a degree of probability, varying all the way from a mere suspicion to almost certainty. There is no pathognomonic symptom, and many are common to this disease and to other cardiac lesions, including the valvular. In the first place, the history of arterial or valvular disease, followed by hypertrophy, or excessive losses of blood, may render it probable that this lesion has supervened. Some enlargement of the percussion area may be present. The character of the impulse may be highly characteristic from its heaving character felt over the whole ventricle instead of merely at the

apex, and resembling a wave, rather than a blow. The first sound may be modified, being sometimes excessively feeble, or almost inaudible, or again being described as having a short, sharp sound, from which the element of muscular contraction is absent, as if produced entirely by the closure of the valves.

The first of these conditions was very marked in one of the cases already reported, the sound having been almost inaudible. The second I have heard in a case which might very well have been fatty degeneration, but in which I had no opportunity to verify such a diagnosis by autopsy. This latter sound, it seems to me quite as reasonable, in the absence of positive evidence, to connect with thinness of the cardiac walls, as with their degeneration. In fact, according to Hayden, this short, snapping sound, if loud and extensively transmitted, distinguishes dilatation with thinning from fatty degeneration. Notwithstanding the fact that in some cases in which results have shown fatty degeneration to have been present, the pulse has been noted as moderately strong or not feeble, there is no doubt but that a decidedly feeble pulse is a piece of evidence not to be disregarded, and to be present in a large proportion of cases. As much may be said for the excessively slow pulse, but neither of them is pathognomonic, while a rapid pulse has but little significance. Cheyne-Stokes respiration has little, if any, significance. The *arcus senilis* was once thought to be a valuable testimonial to general decay, but the error of this assumption was soon made evident by experience. Fothergill, however, says that, if the arcus which depends upon fatty deposit in the cornea, be clearly distinguished from calcareous deposit in the same region, "it will never be found without an unsteady pulse, a feeble heart, and other evidence of general decadence. Osler, however, denies even this.

It is obvious, that in all cases the question is to be decided by the weight of evidence, and not by any one symptom, but that the evidence may be so strong as to amount to proof.

If, in a person either obese, or anæmic, without being necessarily extremely emaciated, or sometimes suffering from a wasting disease, we find a tendency to syncope on slight exertion, or an unnatural degree of depression from slight acute attacks like tonsillitis, or from drugs; with vertigo, a feeble, or especially a slow, feeble pulse, not necessarily irregular but frequently so, with pain about the chest, often paroxysmal in character, cold extremities, and a little œdema of lower limbs, we shall have grave suspicions. If, then, we find on physical examination of the thorax that there is or is not valvular disease, some dilatation, that the impulse is not strong, but is felt as a sort of undulation over a large area and there is no distinct apex beat, if the first sound is very weak or almost inaudible, or is wanting in the muscular element, and if there, is in addition, a soft murmur not referable to valvular disease, the suspicion of fatty heart will amount to almost a certainty. If the case is treated on this basis and it afterwards turns out that the heart was not fatty, there will be nothing to regret, so far as the welfare of the patient is concerned, and we should be justified in saying that if the heart was not fatty it ought to, and soon would have been so.

In regard to the *treatment*, it will be obvious, from what has been said as to the variety of origin, that it cannot be uniform.

Poisoning and anæmia are to be treated rather than their results.

Stoffella (*Wiener Med. Wochenschrift*, 1881, 749) considers iron continued for a long time to be the most universally appropriate drug.

In the cases where fatty degeneration may be suspected to be an accompaniment to the fatty overgrowth—*i. e.*, where, in a corpulent person, dyspnœa or exertion is very excessive with a very feeble pulse, and a tendency to syncope, we should be extremely cautious about exercise and over exertion. The systematic climbing of hills (Oertel's system), which it was admitted might perhaps be admissible in the

case of the purely obese heart, is most surely not so if the muscle is degenerated as well as overloaded.

Digitalis is to be used with judgment, and under the guidance of the quality of the pulse, rather than its frequency. It should always be remembered that the therapeutic effect of digitalis is to raise the tension of the blood in the arteries, while at the same time the force of the cardiac beats is also raised. The toxic action, when it is given in too large doses, is to reduce the tension, and later, the heart's force.

Hence it may be given when the heart is somewhat fatty, if the arteries are sound. Theoretically a heart might be ruptured during its action if it were in a condition of localized degeneration, by the overaction of the remaining healthy fibres. I have, however, met with no recorded instance of such an accident.

So far as the nutrition of the heart itself is concerned, it is favored by the action of digitalis. Thus it will be seen that no absolute rules can be laid down for its use, but it must depend on an estimate of the condition of all parts of the circulatory apparatus.

As to the diet, we occasionally find restriction of fat-forming substances spoken of, as if the fat formed in the heart were in any sense the result of an excess in the blood. This is by no means necessarily so; and, in fact, the contrary condition is often present. When fatty degeneration is the result of fatty overgrowth, as sometimes happens, then this restriction is a proper one; otherwise not. In other words, if fatty degeneration is a result of obesity, treat the obesity.

Peacock's Bromides for Epilepsy.

Dr. J. Stinson Harrison, of Washington, D. C., writes: "About one year ago I was called to see a gentleman of this city who, for fourteen years, had been suffering from frequent (at least weekly) epileptic fits, sometimes severe, sometimes light. I exhausted all the ordinary remedies upon him with but little benefit. Six months since, I commenced the use of Peacock's Bromides, and am pleased to say that from the very first day of its use he has not had a single paroxysm, and now feels himself entirely cured."

Art. II.—Male Neurasthenia—New Cause and Treatment—A Preliminary Report.*

By EPHRAIM CUTTER, M. D., LL. D., of New York, N. Y.

Among the prolific and diverse labors of the late Dr. G. M. Beard, the fixing of the meaning of the term "neurasthenia" was a prominent one. The conventional nomenclature of the causes of death of the present day shows the results of his work. What else means the term "heart-failure" but a nervous prostration of that organ, as verified by *post-mortem* examinations, where no lesion of the heart is found to account for the sudden death? Apparently, all are satisfied with this terminology; but we think it is time to look further, and inquire into the causes of this *neurasthenia*. We know that it has been ably done, but we do not think that one causative lesion of it with which we have become familiar is well known; and, acting on the principle, that if any one knows, or thinks he knows, something new as to the cause and cure of disease, it is his duty to impart that knowledge, even though it should prove he is mistaken; this is writ.

Historical Matters.—Some thirty years ago the writer was Secretary of the Middlesex (Mass.) East District Medical Society, and, on being requested by me to do so, one of the members, Dr. —— ——, of ———, kindly stated his case to the Society, and asked for opinions and treatment. It dealt entirely with neurotic symptoms, which varied from time to time, and showed a lack of nerve force, without any organic disease, which could be detected. The case was a poser; no expression of opinion nor of treatment could be drawn from the members. The doctor himself was a bright, careful, intelligent observer; and his relation showed that he had skilfully treated himself up to the standard of the then present state of knowledge.

After a series of cases had been worked up for several years, on which this paper is based, Dr. ——— case oc-

* Presented by invitation to the Richmond Medical and Surgical Society January 23d, 1890.

curred to mind, and he gratified me by sending, at my request, seven one-ounce bottles of morning urine voided on seven successive days. These specimens, when subjected to physical exploration, *showed the presence of a protoplasmic or colloid discharge*, which, in other cases, had been to me a sufficient evidence of one cause of male neurasthenia, and which it is proposed to explain.

Morphological Evidence.—This physical sign is found in the morphology of the urine. (See the Clinical Morphologies, E. Cutter, New York, 1888, p. 45.) It is not that observers have not noticed this discharge; they have, still they have regarded it of no pathological significance. Where we differ from them is that *we do regard it* as a valuable diagnostic sign of the male neurasthenia. The way this difference of view came about was as follows: Since 1880, I have made a practice of studying the morphology of the urine of patients, *sometimes daily for weeks and months.* But coming upon neurotic cases, in which this colloid discharge was the only appreciable lesion, and finding that when such cases were treated and the catarrhal condition removed, they always improved, and so long as the patient would follow out the directions, the improvement continued, I was led to take the position here given, and I feel convinced that this complaint is a very common one, occurring often in old and young business men and students who apparently are well, save that their complaints of irritability, pains, sometimes excruciating, making them express themselves in terms which appear, to those most interested about them, whimsical, nonsensical, or, as we used to say in our boyhood, "hypoey." And I might remark here that I now think that, if those cases I knew of in my boyhood, and were known to the whole community in which they dwelt as "hypoey," could have had the benefit of what is now understood, they would have passed from the opprobria which rested upon them by proving that there was a physical foundation for their condition, just as the women who had the same term applied to them in those days would have been relieved by finding some gynecological disease.

What to Look For.—In a case of male neurasthenia, which comes to you with a long story of aches, pains, weaknesses, and sufferings, which appears so momentous that you wonder how the sufferer could be alive, and of having want of confidence in the medical profession to discover the seat of his complaint or to relieve him. Usually there is a degree of self-confidence and positiveness of statement in his own conviction, which reminds us of the same qualities we find in our better-halves. You look the case all over carefully; no lesion is found to explain such a great departure from normal innervation. You examine the urine; it appears clear, amber-colored, of good specific gravity, normal odor, and all that is seen, if you allow it to stand over night, is a light protoplasmic cloud, occupying, sometimes, the whole of the lower half of the vial. You cannot tell by the naked eye the characters of this discharge. It is put under the microscope, and the deposit is not made up of triple phosphates or urates; but if you use (as you had better use) a one-inch objective—which is a good one, and the best are none too good—you will find, if the case is a typical one, collections of gluey (colloid) viscid matter, with no extra amount of mucous corpuscles or mucous epithelial cells, moulded in shapes like Indian clubs, varying in color from white to a brown; then, if you look further, skeins of colloid matter, curled up in fanciful shapes, sometimes separated into single filaments, and sometimes filling the field so full of the Hogarth lines of beauty that you cannot help expressing your surprise, perhaps to the discomfort of your anxious patient. Besides this, the discharge is sometimes diffused through the urine in a light, fleecy, unorganized cloud, which it is somewhat difficult to recognize, unless one is familiar with protoplasmic studies. Although these three forms are sometimes found together, still they are often found separate, so that, in enumerating them, we speak, *first*, of the protoplasmic; *second*, of skeins; *third*, of Indian clubs. *Next*, you must examine *seven successive specimens of seven days, i. e.*, one of each day, the first urine voided on rising. It has not seemed justifiable, in a chronic case, to

base the diagnosis on one examination. For example, spermatozoa may be normally discharged once or twice a month, and if you happen to get a specimen on the day of that normal discharge, it will be unwise to jump into the conclusion that the case is one of spermatorrhœa.

Spermatorrhœa, according to my experience of thirty-six years, is a rare disease, and the diagnosis of it is not complete unless the forms are found very much oftener than the normal discharge.

I may be wrong, but I do not consider the finding of the colloid secretion in one specimen evidence enough; it must be found in a majority of the discharges for the days of the week. When you study urine daily, you will find that it varies very much. For example, in the cases in question I have been very much surprised, in times past, to find them alternating on some days with albumen, casts of the kidney tubes, and fatty epithelia, which I regard as diagnostic of Bright's disease. It would be very interesting to enter in on the relationship of these two pathological conditions, but such a consideration must be deferred to the regular paper. I am not an agnostic as to the curability of Bright's disease, for my son and I exhibited three cases of cure at Newport at the American Medical Association June, 1889. (See "Trophopathy in the Fatty and Fibroid Degenerations," *Dietetic Gazette*, December, 1889; *Medical Bulletin*, January, 1890; *Virginia Medical Monthly*, January, 1890.) I will say, however, that the kinship is in the food consumed by the patient.

As to the Importance of this Form of Neurasthenia.—When first acquainted with this disease, I knew it was hard to bear, but did not think it was dangerous; but I have had patients die with it, and the autopsies showed no sufficient cause of death. The manner of going out was with a sudden failure of the heart as if there was not enough nerve force to run it; so I am led to take a more serious prognosis. The patients may live, like Dr. ———, for thirty years, and though he considers that his life has been prolonged by the disease, because it has made him

careful, where he would have been careless, I believe there is danger, especially as the urine will alternate with albuminuria, fatty epithelia, and renal casts as before noted. This complaint is not due to sexual abuse, *i. e.*, as a sole cause; it is a food disease. The catarrh is mainly from the ducts of the prostate and spermatic glands.

PRINCIPLES OF TREATMENT.—The indications are to build up the system on food that does not ferment in the alimentary canal and paralyze different parts of the body which are the weakest. This is done by generally giving the patient one food from the animal kingdom and one food from the vegetable kingdom at a meal. Attention must be paid to digestion, some good tonic nervines, as strychnia, damiana, and phosphorus, sponge baths of ammonia and water used daily to restore the skin to good working condition. The urine must be examined often—at least once a week, better thrice. The patient must go on treatment for from six months to a year, and be carefully watched, to see when he gets his urine right that it stays right. We cannot give here the full directions for diet and medication, as each case is a law unto itself, and must be worked up carefully and handled carefully. If the practitioner will do this, he will find himself rewarded, and his patient will be very grateful. We hope to amplify this more for the next meeting of the American Medical Association before the Committee of Dietetics.

"*The Ariston*," *Broadway and Fifty-fifth Street.*

Robinson's Hypophosphites.

Notwithstanding the large number of Hypophosphites on the market it is quite difficult to obtain a uniform and reliable Syrup. "Robinson's" is a highly elegant preparation, and possesses an advantage over some others, in that it holds the various salts, including Iron, Quinine, and Strychnine, etc., in *perfect solution*, and is not liable to the formation of fungous growths.

Art. III.—Nitrate of Potash for Malarial Fever—A New Observation.

By J. D. HUNTER, M. D., of New Orleans, La.

Chill and fever frequently resist the curative influence of quinine and arsenic, tend to become chronic and very protracted, leading to great physical exhaustion and incurable organic lesions.

I have discovered that *potassii nitras* is an unusually effective agent in the treatment of chill and fever. To speak summarily, I have during the past five years tested it most fully. At least sixty-five per cent of all the cases treated have been cured by the administration of a single dose; thirty-five per cent. were uninfluenced by repeated doses. The best results were obtained when administered during the premonitory stage, which usually ushers in the chill. Twenty-five or thirty grains given at this period will either abort the chill or materially shorten its duration. The febrile stage is correspondingly shortened or reduced to a minimum. A second dose is seldom required; relapse is infrequent. Recent attacks, as well as protracted conditions, were alike cured by the administration of a single dose, while cases apparently similar, corresponding in character and duration, were not relieved. Other forms of intermittent, not associated with chill, were not benefitted in a single instance.

In the employment of *potassii nitras* I have kept the cases treated under close observation and have observed the greatest accuracy in noting results. At my request a few physicians in the country, where chill and fever prevail extensively, have employed the salt. Their experience was identical with mine as to the unusual rapidity and permanence of cures; their proportion of cures have, however, not quite equalled mine.

That a disorder extending over a protracted period of months or years, characterized by the regular occurrence of periodic malarial paroxysms and presenting the character-

istic evidences of chronic malarial poisoning should be instantaneously cured by the administration of a comparatively infinitesimal quantity of *potassii nitras*, a rapid restoration to health following without subsequent treatment and without relapse, does not accord with our experience in the use of medicine and may justly be held as new and unusual.

I have no theory to offer in explanation of the action of the salt; to attempt to *render a reason* would be a mere matter of doubtful speculation. The clinical history and pathological results of the malarial poison have been profoundly studied and most fully elucidated, notably in the great work of Professor Joseph Jones, M. D., of this city; but of the peculiar paroxysmal phenomena arising from the action of the malarial poison in the system, our knowledge is merely speculation; many elaborate theories have been offered, but they amount to little more than plausible hypotheses.

Is the malarial poison an organism? This theory is accepted as the most plausible view; yet, though claimed to have been *proven*, it has not been fully and satisfactorily demonstrated to be a fact.

If the poison is an organism, are the manifestations in the system—chill and fever intermittent, remittent, congestive, pernicious, etc.,—due to the intensity of the cause, degree, and rapidity of development and reproduction or to some modifying property in the system invaded, or are there a variety of organisms each differing in effect and determining the special result? Scientific research has failed to throw any new light upon the subject. Without positive demonstration, the whole matter, in the present state of our knowledge, may be considered as *veiled in profound darkness*.

In order to determine the exact value of *potassii nitras* in the treatment of chill and fever, I would request the profession to give it a full and careful trial and favor us with the result of their experience through this journal or by direct communication.

A large proportion of the morbid conditions of the system which we are called upon to treat, particularly in the South-

ern States, are directly of malarial origin, or are aggravated by a pre-existing malarial cachexia; consequently this subject, more than any other, should enlist the attention of every Southern physician.

Professor Joseph Jones, M. D., has given to the profession a work which, both in America and Europe, is held to be the most thorough and complete one on this highly important subject. Every physician who practices in a malarial region should possess his volumes and study them carefully.

352 *Tulane Avenue.*

ART. IV.—**Old Man, Support Your Perineum!**

By HENRY V. GRAY, M. D., of Roanoke, Va.

FELLOW OF MEDICAL SOCIETY OF VIRGINIA, ETC.

Anatomy teaches us that the *perineum* is that portion of the outlet of the pelvis which lies anterior to the line drawn between the two tuberosities of the ischia; the portion posterior to this *line* is called the ischio-rectal fossa. The fibrous capsule enveloping the prostate gland is derived from the pelvic and deep perineal fascia. The prostate gland is composed mostly of involuntary muscular tissue—the glandular element being feeble; its ducts open into the prostatic portion of the urethra, and it lies in close relation to the rectum. The deep perineal fascia, or the triangular ligament of the perineum, serves to support the urethra and prostate gland. The urethra passes through this fascia or ligamentous tissue at a point about one inch below the symphysis pubis. The perineum is composed of important structures—the anal and genito-urinary group of muscles; pudic and hæmorrhoidal vessels, nerves; membranous, bulbous, and prostatic portions of the urethra—rectum, prostate gland, recess of bladder, etc.

In the male, the perineum has been studied only in reference to its surgical importance, being the elective point of operations for stone in the bladder, and in diseased conditions of the deep urethra.

Let us see if the *physician* should not also take a friendly interest in this important structure, after viewing such an array of anatomical facts, independent of the surgeon. This article is written with that object in view—to bring forward an idea, and develop into a fact, the maxim, "*Old man, support your perineum!*"

This advice is offered more particularly to the man advancing in years, to assist him in the performance of an important duty, and as a preventive of some of those dire calamities which so frequently befall him. As old age creeps on, it is in accordance with nature for all the vital forces to weaken—"*sans* teeth, *sans* eyes, *sans* taste, *sans* everything." His muscles lose their elasticity and tonicity. There is a sagging, sluggish, bulging, pouching, sacculating condition —a fall-down, or helplessness, of all the pelvic viscera—of the membranous, bulbous, and prostatic parts—and of the rectum—a hyperæmic, stasic, constipated, or lax state of affairs—a non-performance in proper manner of rectum and bladder—a "stinking of the residual urine," so aptly spoken of by that distinguished son of Virginia—yes, of the two Americas—McGuire, and there is but one.

This is, then, the concentering, basic point of the author's advice—*Old man*, support your perineum, if you would avoid these things, and many other evils. When at stool, supposing you are, in the usual attitude, that of squatting over a commode (upon feet, knees flexed), place your right hand under the right thigh—the palm of the hand rather in a diagonal line; press the palmar surface of the fingers firmly between the scrotum and anus, not too pointed. Make a reasonable inspiratory effort, which will force the perineum outward; and, by giving the proper support and resistance with your hand, you can readily and completely empty both bladder and rectum, and thus prevent that bulging and sagging of the urethra and rectum which would otherwise follow the effort. You not only accomplish, in a satisfactory manner, what you have undertaken, but you break up the tendency to constipation, force back the blood into the general circulation, abridging the synchronism to piles, ab-

scesses, fissures, hypertrophy of prostate gland, cystitis, and that horror of many old men, pruritus ani.

Would that the same application could be made to the female. Strange to say, whilst she has also a perineum, it is of but little value in this respect, until it is magnified, enlarged, and developed in the third stage of labor, having an accouchment value. What a world of comfort would it be to the female in her constipations, prolapsus, etc.

The great Prof. S. D. Gross said to us in our student days, "Gentlemen, I will instruct you to-day how to make a good poultice; and if you hereafter carry out rigidly my instructions, you, doubtless, will thank me, and you will have, at least, been paid back one dollar of the fifteen dollars paid me as my fee in this branch of your profession." Likewise, I will state, if the old man will hearken to the advice herein given, I feel secure in saying he will thank me for my feeble effort in his behalf.

Analyses, Selections, etc.

Report of the Second Hyderabad Chloroform Commission.

All the world will be interested in this Report, which appears in full in *The Lancet* January 18th, 1890, from which we compile this synopsis.

The Commission owed its existence to Surgeon-Major Lawrie's veneration for his late teacher, Prof. Syme, and his desire to prove the correctness of Syme's teaching, that chloroform might, with perfect safety, be administered, *provided* the administrator watched the respiration with sufficient care. Surgeon-Major Lawrie's own experience of many thousand cases confirmed, in his opinion, the truth of this doctrine; but it had been impugned on account of the results of physiological experiments, and he was, therefore, desirous of proving its truth by laboratory experiments, as well as by clinical experience. Accordingly, at his suggestion, the Nizam's Government appointed a Commission, consisting of Dr. Hehir, and Messrs. Kelly and Chamarette. These gentlemen, from a series of experiments, arrived at

the conclusion that "chloroform always arrests the respiration before the heart."

Hesitation on the part of many (who believed that one of the dangers from chloroform was paralysis of the heart) to accept the conclusions of the First Commission led Dr. Lawrie to propose a Second Commission. The Nizam Government contributed £1,000. The *Lancet* selected as its representative Dr. Lauder Brunton, F. R. S., and on his arrival at Hyderabad, on October 22nd, 1889, the *Second Commission* was at once formed, consisting of Surgeon-Major Lawrie, as President, and of Drs. Lauder Brunton, Bomford, and Rustomjé, as members. The members of the First Commission were also associated in the work, and rendered most valuable assistance.

The Second Commission commenced work October 23rd, 1889, and met daily (except Sundays and holidays) from 7 A. M. till 5 P. M., until December 18th, when the experiments were concluded. The total number of experiments performed were 430, on 360 dogs and 70 monkeys.

Notwithstanding the great length of the quotation appended from *The Lancet*, we make it, believing that it will be preferable to an attempt at a synopsis:

"The experiments of the Committee were designed to show the effect upon the blood pressure, heart, and respiration of the inhalation of chloroform, ether, and the A. C. E. mixture, administered in various ways and under varying conditions. The objects of the Commission were five in number—

I. To test the suitability and safety of chloroform as an anæsthetic. The experiments with ether and the A. C. E. mixture were instituted principally for the sake of comparison with chloroform on certain points, and it is not pretended that they afford a complete exposition of the action of those agents on the system.

II. The effect of pushing the above-named anæsthetics (*a*) to a dangerous degree, and more especially until the respiration ceases; (*b*) until death results.

III. The modifications in the effects of these anæsthetics which result from (*a*) asphyxia in varying degrees and produced by various means, (*b*) from the use of drugs, such as morphine, atropine, physostigmine, and others.

IV. The reality or otherwise of the alleged liability during ordinary chloroform administration to the occurrence of primary or secondary syncope or stoppage of the heart, brought about either by shock or through fatty or weak

heart, or by haemorrhage, or by change in the position of the body. To investigate these points, in the first place, a large number of operations, which are reported to be especially dangerous in reference to shock, were performed in every stage of anæsthesia, and numerous experiments were also made to show the effect of direct irritation of the vagus. Secondly, a number of animals were dosed with phosphorus before they were experimented on. This caused weakening of the heart by fatty degeneration of its fibres, but at the same time other complicated changes in the whole of the organs of the body not met with in the condition known as fatty heart in human beings. On the other hand, there are conditions often met with in the fatty heart, such as changes of the coronary vessels, which were not produced by the phosphorus.

V. The effect of the anæsthetics above mentioned upon different animals, more especially upon monkeys, as the nearest approach to human beings.

The conclusions to which the Commission has been brought by the study of these experiments are the following:

(1) Chloroform, when given continuously by any means which ensures its free dilution with air causes a *gradual* fall in the mean blood pressure, provided the animal's respiration is not impeded in any way, and it continues to breathe quietly without struggling or involuntary holding of the breath, as almost always happens when the chloroform is sufficiently diluted. As this fall continues, the animal first becomes insensible, then the respiration gradually ceases, and lastly, the heart stops beating. If the chloroform is less diluted, the fall is more rapid, but is always gradual, so long as the other conditions are maintained; and however concentrated the chloroform may be, it never causes sudden death from stoppage of the heart. The greater the degree of dilution, the less rapid is the fall, until a degree of dilution is reached which no longer appreciably lowers the blood pressure or produces anæsthesia.

(2) If the inhalation is interrupted at any stage, the fall of pressure still continues at a rate which depends altogether on the rapidity of the fall while the chloroform was being inhaled. This after-fall is probably due to absorption of a portion of the residue of chloroform in the air passages after the stoppage of the inhalation. In this way, it often happens, if chloroform is given rather freely, that, though the respiration may be going on when the chloroform is discontinued, it afterwards stops.

(3) If the administration of the chloroform is stopped at an early stage, the pressure very soon begins to rise again, and gradually becomes normal; but if the chloroform is pushed further, there comes a time, not easy to define, when the blood pressure and respiration will no longer be restored spontaneously, although the heart continues to beat after the inhalation is stopped.

(4) If the fall has been very gradual, it may occasionally happen that the respiration stops completely, and still the blood-pressure rises again, the respiration recommencing spontaneously in the course of the rise. In the same way, when the inhalation has been discontinued, the respiration may stop during the after-fall of the blood pressure and begin again spontaneously. As a rule, if the respiration has stopped, or even becomes slow and feeble at the time when the inhalation is discontinued, and artificial respiration is not resorted to, the fall in blood pressure will continue until death ensues

(5) There are two conditions which frequently disturb the gradual fall of the blood pressure—viz., struggling and holding the breath—and it is only by great care that they can be avoided in animals.

(6) Struggling, independently of any change in the respiratory rhythm, appears generally to raise the blood pressure. In one case of a dog, much weakened from phosphorus, the pressure fell every time he struggled.

(7) When struggling is accompanied, as it often is, by acceleration of the respiration and pulse, especially if the respiration is deep and gasping, it leads to a more rapid inhalation of chloroform, and consequently to a more rapid fall of blood pressure and a greater after-fall. In order to keep the chloroform cap or inhaler in its place during the animal's struggles, the administrator is obliged to hold it down more tightly over the nose and mouth, and this materially assists in hastening the rapidity of the inhalation, and consequently of the fall in blood pressure.

(8) The effect of involuntarily holding the breath (which, as anybody can prove by experiment upon himself, must happen when an inhaler saturated with chloroform is first applied to the face) is much more remarkable—the pressure often falling with great suddenness, while the heart's action is markedly slowed. As soon as the animal draws breath again, the pressure rises as suddenly as it fell, but the gasping respiration which succeeds then causes very rapid inhalation of chloroform, with immediate insensibility

and a rapid fall of blood pressure, which quickly becomes dangerous.

(9) The combination of struggling with alternate holding the breath and gasping, which results if chloroform is applied closely to the face without sufficient dilution with air, causes violent fluctuations, and then a speedy fall of the blood pressure, which very soon leads to a dangerous depression, with deep insensibility and early stoppage of the respiration. The after-fall, under these circumstances, is rapid and prolonged. It is this combination of events which causes struggling animals to go under choloform so quickly.

(10) The effect of holding the breath may occasionally cause a temporary fall of blood pressure after the chloroform inhalation has been stopped, or even when the animal is quite out of chloroform. This fall is recovered from directly the animal breathes again.

(11) Slight continuous asphyxia, such as is produced by pressure on the neck by straps, a badly-fitting muzzle, or hindrance of the chest movements by the legs being too tightly bound down, gives rise to exaggerated and irregular oscillations of the blood pressure, and slowing and irregularity of the heart's action. If it leads to, or is accompanied by, deep gasping inspiration, it is apt, like anything else which causes this, to increase the intake of chloroform and bring about a rapid decline of blood pressure.

(12) Complete or almost complete asphyxia, as by forcibly closing the nose and mouth, or closing the tracheal tube after tracheotomy, has an effect similar to, but more marked than, that produced by holding the breath, and the character of the trace corresponds precisely to that produced by irritation of the peripheral end of the cut vagus. The pressure falls extremely rapidly, sometimes almost to zero, and the heart's action becomes excessively slow, or even stops for a few seconds. If the Fick trace of Experiment 148 be compared with the photographic reproduction of Trace A of the Glasgow Committee, it will be seen that they are identical, and that the slow action of the heart, with great fall of pressure, which the Glasgow Committee attributed to some capricious action of chloroform upon the heart, was undoubtedly due to asphyxia.

(13) This effect of asphyxia is the result of stimulation of the vagi. The proof of this is (*a*) that the trace corresponds exactly, as stated above, to that produced by direct irritation of the vagus; (*b*) division of both vagi entirely

abolishes it; and (*c*) the administration of atropine which paralyses the vagus also abolishes it.

(14) In Trace 158 (Fick 4), which was taken during asphyxia after a full dose of atropine, it will be seen that there is an alternately slow and rapid pulse according to the phase of the respiratory movement, but no continued slowing of the heart, as in vagus irritation. But there was still a distinct fall of pressure after the atropine when the breath was held; and it was thought that the slowing of the pulse, above noted in this condition, might be due to the disturbance of the heart from tension in the pulmonary vessels in the absence of respiratory movement, rather than to irritation of the vagi. To test this point, Experiment 184 was instituted. In this experiment the dog's chest was forcibly inflated with bellows, connected by a tube with the trachea, and the effect of this proceeding was to cause a fall of pressure and slowing of the heart exactly the same as involuntary holding of the breath. The dog was then poisoned with atropine, after which inflation of the chest still caused a fall of pressure, but without slowing of the heart. The fall of pressure must be, in some degree, independent of vagus irritation, which, however, usually accompanies it.

(15) It only remains to be considered whether the slow action, or temporary stoppage of the heart, with great fall of pressure produced by vagus irritation, is in itself an element of danger in chloroform administration, and if it is not, wherein the danger actually lies.

(16) The experiments in which deliberate irritation of the vagi was carried on during anæsthesia show unmistakably that irritation of these nerves diminishes, rather than inhances, the danger of anæsthetics. The effect upon the heart is never continuous, and as the vagus becomes exhausted, or when the irritation is taken off, the blood pressure rises again, as it does when the same result is produced by asphyxia. The slowing of the heart and circulation which is produced by irritation of the vagus by any cause, such as holding the breath in chloroform administration, retards the absorption and conveyance of chloroform to the nerve centres, just as holding the breath, whether voluntary or involuntary, prevents chloroform from entering the lungs; and of itself slowing or temporary stoppage of the heart in chloroform administration is not dangerous.

(17) To answer the second part of the last question in Paragraph 15 is easy enough, if it is kept in mind that the effect of vagus irritation upon the heart is never continu-

ous; and in chloroform administration, as the pressure rises again after the slowing of the heart and temporary fall of pressure produced by any form of asphyxia, violent respiratory efforts, with bounding heart's action, lead, as in the case of struggling, to a rapid and dangerous inhalation of chloroform, and consequent rapid and dangerous decline in blood pressure. It is, in fact, the temporary exhaustion of the vagi after stimulation that is to be feared, and not the actual stimulation as long as it is continued.

(18) In accordance with this fact, it will be found that in chloroform administration, neither holding the breath, even if involuntary, or vagus inhibition can be kept up beyond a certain time; and if the chloroform is not removed from the face, one or both of two things may happen: (*a*) when the animal breathes again, it takes deep and gasping inspirations, the lungs become filled with chloroform, and an over-dose is taken in with extreme rapidity; or (*b*) when the restraining influence of the vagus is taken off the heart, through the irritation ceasing or the nerve becoming exhausted, the heart bounds on again, and the circulation is accelerated in proportion. The blood then becomes quickly saturated with chloroform, and an over dose is at once conveyed to the nerve centres. The theory which has hitherto been accepted is that the danger in chloroform administration consists in the slowing or stoppage of the heart by vagus inhibition. This is now shown to be absolutely incorrect. There is no doubt whatever that the controlling influence of the vagus on the heart is a safeguard, and that it is the exhaustion of the nerve which is dangerous.

(19) It can be readily understood how a condition in which the pulse is rapid and bounding, with high blood pressure, leads to more rapid absorption of chloroform from the lungs, and a more rapid propulsion of the chloroformed blood to the medulla oblongata, and consequently to a more rapid paralysis of the respiratory and vaso-motor centres and precipitous fall in the blood pressure. Such a condition is produced in some cases by ether or by division of both vagi, or by a full dose of atropine. Not only is the poisoned blood carried more swiftly to the vital centres in these cases, but added to this there is the fact that, as the heart is already doing its utmost before the chloroform is given, it is unable to stave off by increased work the fall in pressure that occurs when the vaso-motor centre is paralysed. On the other hand, it seems clear from Experiment 92 that the direct action of chloroform upon the heart's substance

is not the cause of the fall of pressure that occurs when it is inhaled.

(20) In Experiment 92 repeated injections of 20 minims of chloroform were made into the jugular vein, and its effect was not to paralyse the heart, but to produce anæsthesia and a gradual fall of blood pressure exactly as if the chloroform had been inhaled. In Experiment 72, after a considerable amount of ether had been injected into the jugular vein, and a bounding condition of pulse had been produced, the effect of injecting chloroform into the jugulars was much greater, and the fall of blood pressure much more rapid and dangerous, than in the case when chloroform alone was injected. Granting, then, the truth of Ringer's conclusions from experiments on the frog's heart (which have not been repeated and confirmed by the Commission) that chloroform has a gradual paralysing effect upon the heart's tissue, we must conclude that such an effect, in the degree in which alone it could occur in the practical inhalation of chloroform, would rather be a source of safety than of danger.

(21) The Committee discussed the advisability of cutting the vagi some time previously to experimenting on the blood pressure with chloroform. The effect of this proceedure is to cause continuous rapid action and tendency to exhaustion of the heart, as well as to degeneration of the terminal branches of the nerves in the heart if the animal live sufficiently long. Such experiments might be of some interest theoretically, and also have had a practical bearing upon the condition of the heart in certain cases of chronic alcoholism; but the Committee decided not to perform them, as it considered the end to be gained did not justify the pain they would have inflicted.

(22) In Experiment 178, the case of a dog that had had morphine, remarkable slowing and even temporary cessation of the heart's action occurred again and again at the same moment as the respiration stopped, but the heart invar ably recovered itself, and began again to beat regularly before any steps were taken to restore the animal, and without any respiration occurring. We find in this case, that it was possible to restore the animal, even after unusually long intervals had been allowed to elapse between the cessation of the natural and the commencement of artificial respiration. The failure of the heart, if such it can be called, instead of being a danger to the animal, proved to be a positive safeguard, by preventing the absorption of the residual chloroform and its distribution through the system.

(23) The effect of artificial respiration after the natural respiration has ceased is to cause an alternate rise and fall of small amount in the blood pressure, the trace thus formed upon the drum being a coarse imitation, altered somewhat by the shaking of the table, of the natural respiratory curve. The difference consists chiefly in the fact that the artificial rise and fall are more abrupt than in natural breathing, and that the rise always coincides with expiration or compression of the chest. After artificial respiration has been continued for a certain time, the blood pressure begins to rise again, and a little later natural respiration returns.

(24) The effect of artificial respiration in restoring an animal after the respiration had stopped was always marked. In a few exceptional cases, such as Experiment 159, a phosphorus dog, and Experiment 142, a horse which had an enormous overdose, although the artificial respiration was commenced as soon as possible after the breathing was noticed to have stopped, it was not successful.

(25) Complete stoppage of the respiration always means that an over-dose has been administered, and the over-dose may have been so great as to produce a very prolonged after-fall of blood pressure, and may thus render restoration impossible. As it is impossible to say whether, after chloroform has been pushed and then discontinued, the respiration will be restored spontaneously or not, so it is never in any case certain that artificial respiration will restore the natural respiration and blood pressure, no matter how soon it is commenced after the respiration stops. A great deal depends upon the amount of the after-fall: in some cases, even after the respiration has been restored, the pressure continues to fall and respiration again ceases, and artificial respiration then fails. We thus find respiration restored by artificial respiration while chloroform is still being absorbed, and this tends to show that artificial respiration does not merely pump the chloroform out of the blood, but exerts considerable influence in exciting the natural respiration.

(26) The time which elapses before artificial respiration succeeds in restoring natural respiration varies very greatly. In one case—Experiment 116—it was continued for eleven minutes before the first natural gasps commenced. This period is undoubtedly prolonged in some cases by a condition of physiological apnœa, which renders it unnecessary for the animal to breathe. Consequently, whenever the pressure rose considerably during artificial respiration, it

was stopped, and the animal then generally breathed after a few seconds.

(27) The time which may be allowed to pass with impunity before commencing artificial respiration also seems to vary considerably. This point was not particularly attended to in the manometer experiments, except in Experiments 162 and 178, which were instituted to test the truth of the opinion formed by the Sub-committee, that morphine had some slight action in impairing the efficiency of artificial respiration. In these cases the commencement of artificial respiration was postponed for more than two minutes after respiration ceased, and was successful; but this is certainly far above the average interval that can be allowed with safety. The success of artificial respiration in restoring the blood pressure is in some cases very remarkable; *vide* especially Experiment 40, in which the heart had apparently ceased beating, and the dog was believed by every one present to be dead, and yet recovered with artificial respiration. The success in this instance is due to the fact that chloroform had only been administered for a few seconds, and that the depression was the result, not of continuous chloroform administration until respiration ceased, but of a long and severe after-fall.

(28) It corresponds to those cases, which are so often reported, in which dangerous failure of the heart is said to have occurred some minutes after the administration of chloroform had been discontinued, and which are sometimes restored, and sometimes not, by artificial respiration. There is nothing at all sudden about the failure of the heart in these cases, but the attention of the chloroformist, which has been wandering, is suddenly called to the fact that the patient is apparently dead. When the animal was really dead, it was found, in some cases, that artificial respiration still maintained a small amount of mean pressure in the manometer. In others, the pressure seemed to fall to the zero line between each compression of the chest.

(29) The dangers of too vigorous artificial respiration were illustrated in some of the accidental deaths. In one case the liver was badly ruptured, and in another the pleural cavity was full of blood. In three cases—Experiments 80, 92, and 103—rythmical movements of the diaphragm were noticed after the heart had ceased beating and after the chest had been opened. It is remarkable that in two of these cases the splanchnic nerve had been divided. The third was a case in which chloroform had been injected into

the jugular vein, and in this case there was a synchronous movement of the jaw as well. In all, death and stoppage of the heart had occurred gradually, and in Experiment 103 the heart was still irritable. These movements cannot be called respiration; though the last gasp of a dying animal, that ineffective jerk of the diaphragm, which is such a fatal symptom, is very likely, in many cases, a movement of the same character. Similar movements, which were continued much longer, occurred in Experiment 104, after the thorax was opened, while the heart was still beating. Still more remarkable convulsions of the muscles of the jaws, ears, and fore-feet occurred in Experiment 167, in the case of a dog that had been poisoned with nicotine. These movements continued at regular intervals for more than ten minutes after death, and were sufficiently forcible to jerk the handles of a pressure forceps fixed on the end of the tongue off the table at each spasm. In a rabbit, in Experiment 153, the auricles of the heart continued to beat rhythmically for three hours after it was supposed to be dead from chloroform, and its thorax had been laid open. Irritability of the heart after death was noticed in many cases, but seemed to be most marked in cases where ether had been used.

(30) Chloroform injected into the heart through the jugular vein did not cause clotting of the blood, as was the case when ether was injected.

(31) In the course of the experiments of the Committee various drugs were administered, in order to ascertain if they had any effect in modifying the action of chloroform. The result showed that none of them had any effect in preventing the typical descent of the blood pressure that occurs when chloroform is inhaled. Atropine, when given in a dose sufficient to paralyse the vagi, of course prevents the action of those nerves in asphyxia, and, by increasing the action of the heart, it appears to cause a more rapid descent in the blood pressure when chloroform is inhaled, as has been already explained. Morphine appeared, in Experiment 162, to render the rise in blood pressure that occurred when the chloroform was discontinued slower and less complete, and to bring about a more or less permanent condition of anæsthesia. It may be noted that the animal used in this experiment was a monkey; and in other experiments with monkeys, when no morphine had been given, it was remarked that the animal, after a few inhalations of chloroform, would often lie quite quiet in a state of semi-insensibility for a long time without further inhalations; still this

condition was much more marked in Experiment 162 than in any of the others. No action of this kind was noticed in the dog in Experiment 178, but other experiments (90 and 94) showed that pariah dogs are very indifferent to the action of morphine, and it is probable that the dose of morphine in this case was insufficient to bring about the condition noted in the monkey. The peculiar behavior of the heart in Experiment 178 was not the result of the previous administration of morphine, for a similar phenomenon had occurred in other cases (40 and 60) in which no morphine had been given. Experiments 162 and 178 prove conclusively that morphine has no effect in shortening the period that may be allowed to elapse between the cessation of natural respiration and the commencement of artificial respiration.

(32) The other drugs used had no effect upon the action of chloroform, except when their own special action became the leading feature in the case, as, for instance, during the vomiting from apomorphine (Experiment 104, Fick 9,) or the convulsions produced by nicotine (Experiment 167).

(33) In order to test the alleged danger from shock during chloroform administration, the Committee performed a very large number of those operations which are reputed to be particularly dangerous in this connection, such as extraction of teeth, evulsion of nails, section of the muscles of the eye, snipping of the skin of the anus, etc. In many cases the operation was performed when the animal was merely stupefied by the chloroform and not fully insensible. In such cases a slight variation in the blood pressure would sometimes occur, such as one would expect from the irritation of a sensory nerve, or from the struggling that ensued, but in no case in any stage of anæsthesia was there anything even suggestive of syncope or failure of the heart's action. In thrusting a needle into the heart, there was often a momentary, but well-marked, fall of blood pressure; but even this was absent in all other injuries. If chloroform really had any power to increase the tendency to shock in operations, it is impossible to believe that it would not have been manifested, to some degree at least, in one or other of these numerous experiments. The Commission was, however, not content with this negative result, and determined to ascertain the effect of direct irritation of the vagi during continued chloroform administration. The result of such experiments (65, 117, and others) proved that inhibition of the heart's action prevented, rather than as-

sisted, the fatal effects of prolonged chloroform inhalation. An animal that was put into a condition of extreme danger (from which it could only be restored by means of artificial respiration) by inhalation of chloroform for one minute recovered spontaneously and readily after five minutes of chloroform inhalation, together with inhibition of the heart by electrical irritation of the vagus carried on simultaneously. In one of these experiments (117), chloroform was pushed for seven minutes; and during continued irritation of the vagus the animals repeatedly came round without artificial respiration. The danger really begins when the irritation is discontinued or fails to inhibit the heart, and thus enables the chloroform in the lungs to be rapidly absorbed and thrown into the system. The danger is certainly increased by deliberately pumping the chloroform into the lungs by means of artificial respiration, for animals in which this was done, although they showed a tendency to recover when the chloroform and irritation of the vagus were discontinued, afterwards died rapidly.

(34) On another occasion, during Experiment 117, the animal was very nearly killed by a comparatively short inhalation of chloroform, owing to the electrodes becoming accidentally short-circuited and failing to keep up the irritation of the vagus. Something similar occurred in Experiment 177, the effect of the irritation of the vagus passing off while the chloroform was still being pushed, and thus putting the animal into a condition of extreme and unexpected jeopardy. Nothing could be more striking than these near approaches to accidental death from failure to irritate the vagus efficiently.

(35) Other experiments were made to test the truth of the statement that chloroform increases the action of electrical stimuli applied to the vagus, and showed conclusively that it has no such effect. In one instance only the inhibition seemed to be intensified as the chloroform was commenced, and diminished when it was discontinued; but apart from the fact that the supposed effect ceased much too suddenly, a repetition of the experiment on the same and other animals showed that there was in reality no such effect. The increased inhibition in this instance was due to the chloroformist compelling the attendant who was holding the electrodes to change his position, and thus making him unconsciously apply them more efficiently. When the chloroformist withdrew, they were restored to their former position. This affords an instance of the care that has to

be taken in making experiments, if one is not to be deceived.

(36) To test the effect of shock due to vaso-motor change rather than affection of the heart, Goltz's experiment on the frog was repeated on three dogs. In one there was slight lowering of pressure, which was not extensive, and in the others no effect was produced at all. Other operations which seemed likely to produce shock, such as violent blows upon the testicle, were singularly devoid of effect. Failing to lower the blood pressure by any of these methods, recourse was had to section of the splanchnics; but the low condition of blood pressure this produced appeared, like stoppage of the heart from vagus irritation, to be a source of safety, rather than of danger, during the chloroform administration. In this connection Experiment 111 may be studied. There was not much external hæmorrhage, but the splanchnics were divided, a proceeding which, as is often said, bleeds the animal into his own vessels. The pressure was after this extremely low, but chloroform was repeatedly given and various other actions taken, and then chloroform had to be pushed on a saturated sponge enclosed in a cap for eleven minutes before respiration ceased.

(37) The conclusion, then, is this: Chloroform has no power of increasing the tendency to either shock or syncope during operations. If shock or syncope from any cause does occur, it prevents, rather than aggravates, the dangers of chloroform inhalation.

(38) The experiments on dogs that had been dosed with phosphorus for a few days previously show that the fatty and consequently feeble condition of the heart and other organs so produced have no effect in modifying the action of chloroform. The ease with which vagus irritation and the Glasgow trace could be produced in these animals, by even slight degrees of asphyxia, was very remarkable; but this was equally the case in dogs that had been given phosphorus only a few hours before the experiment, and whose organs were not yet fatty. Many of these cases were in the last stages of phosphorus poisoning, and several of their companions died without any experiment having been performed on them before or on the same day as they died (*vide* the low state of blood pressure in Experiment 163). Numerous attempts were made in these animals to produce shock by operations in the recumbent and vertical positions, but without any more result than in those that were healthy.

(39) The truth about the fatty heart appears to be that chloroform *per se* in no way endangers such a heart; but, on the contrary, by lowering the blood pressure, lessens the work that the heart has to perform, which is a positive advantage. But the mere inhalation of chloroform is only a part of the process of the administration in practice. A patient with an extremely fatty heart may die from the mere exertion of getting upon the operating table, just as he may die in mounting the steps in front of his own hall door, or from fright at the mere idea of having chloroform or of undergoing an operation, or during his involuntary struggles. Such patients must inevitably die occasionally during chloroform administration, and would do so even were attar of roses, or any other harmless vapor, substituted for chloroform.

(40) The effect of hæmorrhage was tested by opening the femoral artery and allowing a considerable quantity of blood (eight to twelve ounces) to escape. An immediate lowering of the blood pressure results, and this is very slowly recovered from. Such an accident, however dangerous it may be in itself, in no way affects the action of chloroform, except in so far that a patient who has been nearly bled to death would require less chloroform in his system to put him into a state of anæsthesia. The low condition of his blood pressure produced by the hæmorrhage would tend to prevent the too rapid intake of chloroform, exactly as in the case of cutting the splanchnics. (*Vide supra* sub-paragraph 36.)

(41) When the hind feet are lowered on to the floor so as to place the animal in the vertical position, a considerable fall of blood pressure in the carotid artery occurs; but when the animal is replaced on the table in the recumbent position the pressure is fully restored. Various operations were performed on animals in the vertical position, but in no case was anything resembling dangerous shock produced. Inversion of the body, so that the animal stands on its head, has exactly the opposite effect, the pressure rising in the carotid artery, and again falling to its former state when the animal is replaced in the horizontal position. Inversion of the body failed to restore an animal that was in the last stage of chloroform poisoning, though it raised the pressure in the usual way as long as it was continued. The change in the pressure of the blood of the carotid, which occurs when the position of the body is changed, appears, therefore, to be due simply to the effect of gravity.

(42) As regards the effect of chloroform upon different animals, it may be said to be the same as far as its anæsthetic action is concerned. There are certain peculiarities in its effect on the respiration and circulation connected with its local irritant action on the nostrils and fauces which are interesting to notice. Thus, when concentrated chloroform vapor is applied to the nostrils of rabbits, they hold their breath, and the heart's action is slowed at once. This is always said to be due to reflex inhibition of the heart from irritation of the nasal branches of the trigeminus reflected through the vagus, and is by no means peculiar to chloroform, but is produced equally by any irritant vapor, such as ammonia or acetic acid.

(43) In some dogs, and especially in those to which phosphorus had been given, stoppage of the respiration and slowing of the heart occurred immediately after the application of the chloroform to the face, or on forcibly pulling out the tongue, and this suggests that the mechanism of cardiac arrest in them is precisely the same as it is in the rabbit. On the other hand, in rabbits, as in all other animals, it is possible to give chloroform so gently that no spasm of the chest occurs, no reflex effect is produced, and then the pressure falls in the same regular curve and with the same succession of phenomena (anæsthesia, cessation of the respiration, and, lastly, cessation of the heart-beat,) that was above described as typical of chloroform inhalation.

(44) Goats have a great tendency to hold their breath while inhaling chloroform, and monkeys resemble dogs rather than rabbits, as when ammonia was held before a monkey's nose (Experiment 98) it did not cause immediate stoppage of the respiration and heart, as it does in rabbits.

(45) The experiments with ether show that it is impossible to produce efficient anæsthesia with this agent unless some form of inhaler is used which thoroughly excludes the air. If an ordinary cap containing a sponge saturated with ether is applied very closely to the face, the animal generally holds its breath and struggles, and we at once get the fall of blood pressure and slowing of the heart that invariably occur under these circumstances. If the ether is continued in this way after the animal has re-commenced breathing, a condition of semi-anæsthesia results, in which the cornea is sometimes sensitive and sometimes insensitive, and the pressure rises and falls alternately to a slight amount, and forms a wavy trace, which may be continued right round the drum without any particular change. As

soon as air is rigidly excluded, the pressure commences to fall gradually exactly in the same way as with chloroform, and with the same succession of phenomena—viz: first, anæsthesia, then cessation of the respiration, then of the heart movements, and finally, death. How far this is due to ether and how far to the results of asphyxia, it is impossible to say, but an exactly similar succession of events can be brought about by making the animal inhale carbonic acid gas alone.

(46) If surgeons choose to be content with a condition of semi-anæsthesia, it can, no doubt, be produced with perfect safety, though with discomfort to the patient, by ether held rather closely over the mouth. Such a condition of imperfect anæsthesia would never be accepted by any surgeon accustomed to operate under chloroform. If more perfect anæsthesia is required, it can be procured by excluding the air more rigidly, but then there is exactly the same danger as in giving chloroform. How very suddenly and rapidly the pressure may fall and death ensue is well shown by Experiment 33. Ether injected into the jugular vein produces a fall of blood pressure and anæsthesia in the same way as chloroform does; but in all cases in which it was so injected, large clots were found in the heart immediately after death. It is interesting to note that Claude Bernard seems to have formed a very similar opinion with regard to ether, as the following quotations from his work entitled "Lecons sur les Anesthésiques et sur l'Asphyxie," published in 1875, show: [We omit the lengthy French quotation.]

(47) The A. C. E. mixture, given gently with plenty of air and the other conditions mentioned before under chloroform, produces the typical chloroform trace. Given freely to a struggling animal, it can produce a very rapid and dangerous fall of blood pressure. In Experiment 52, Fick 4 shows very perfectly the effect on the heart of holding the breath.

Accidental Deaths.—The notes of the cases of accidental deaths that occurred during our experiments * * * * * can be readily found by a reference to the index. The fatal result was brought about either by neglecting to watch the condition of the respiration during or after the administration of chloroform, especially while the carotid artery was being exposed, or from a reckless administration of chloroform in the endeavor to check or prevent struggles. In all the cases of accidental deaths, the usual chloroformist was absent, and no one was attending to the chloroform. The

notes would have been more complete if some one could have watched the condition of the animal and noted the gradual but unheeded cessation of respiration without calling attention to it. As it is, one has to be content with the remark that the breathing was noticed to have stopped at some particular time, but there is nothing to throw any light upon the condition during the important period that immediately preceded this discovery A similar hiatus appears in the account of accidental deaths in the human subject, and is unavoidable. These cases are probably identical with the instances referred to by Snow, "in which animals died in a sudden and, what was thought, unaccountable manner whilst chloroform was given to prevent the pain and struggles which would be occasioned by physiological experiments. The death was not really sudden, but only rapid, and the result of reckless administration of concentrated vapor in the first instance,and careless neglect of the condition of the respiration in the second. There is no evidence whatever that a single one of them was due to paralysis or sudden stoppage of the heart, as Snow assumes to have been the case.

It must be remembered, in studying the tracings, that, except when it is expressly stated to the contrary, chloroform was throughout administered very freely.* The degree and rapidity of the fall of blood pressure are, in almost all cases, much greater than should be the case in administering chloroform to human beings. To avoid complicating the notes, the inhaler was kept on much more persistently, with none of those little interruptions while the cornea is being examined, etc., which always occur in practice. The whole series, with few exceptions, may be characterized as examples of reckless administration of chloroform, and accidental deaths would have been much more numerous had it not been that, when once the animal was connected with the menometer, it was kept under the most careful observation. Experiment 79 affords a most interesting exception. The chloroformist, though present in body, was absent in mind, and failed to observe and report the cessation of the respiration. The chloroform was, in consequence, pushed much further than it should have been, and the animal died sooner than was intended.

These cases are of themselves quite sufficient to show that animals are just as liable to death from the careless admin-

* It may be noted that 109 pints of chloroform and 11 pints of ether were used during the experiments of the Commission.

istration of chloroform as human beings; and the accidental deaths which occurred during the experiments of the Commission afford the best possible proof that the effects of chloroform are identical in the lower animals and in the human subject. The statement so frequently made, that dogs are more resistant to chloroform than human beings, is entirely incorrect.

Practical Conclusions—The following are the practical conclusions which the Commission think may fairly be deduced from the experiments recorded in this report:

I. The recumbent position on the back and absolute freedom of respiration are essential.

II. If, during an operation, the recumbent position on the back cannot, from any cause, be maintained during chloroform administration, the utmost attention to the respiration is necessary to prevent asphyxia or an overdose. If there is any doubt whatever about the state of respiration, the patient should be at once restored to the recumbent position on the back.

III. To ensure absolute freedom of respiration, tight clothing of every kind, either on the neck, chest, or abdomen, is to be strictly avoided; and no assistants or bystanders should be allowed to exert pressure on any part of the patient's thorax or abdomen, even though the patient be struggling violently. If struggling does occur, it is always possible to hold the patient down by pressure on the shoulders, pelvis, or legs, without doing anything which can, by any possibility, interfere with the free movements of respiration.

IV. An apparatus is not essential, and ought not to be used, as, being made to fit the face, it must tend to produce a certain amount of asphyxia. Moreover, it is apt to take up part of the attention which is required elsewhere. In short, no matter how it is made, it introduces an element of danger into the administration. A convenient form of inhaler is an open cone or cap with a little absorbent cotton inside at the apex.

V. At the commencement of inhalation, care should be taken, by not holding the cap too close over the mouth and nose, to avoid exciting, struggling, or holding the breath. If struggling or holding the breath do occur, great care is necessary to avoid an overdose during the deep inspirations which follow. When quiet breathing is ensured, as the patient begins to go over, there is no reason why the inhaler should not be applied close to the face; and all that is then

necessary is to watch the cornea and to see that the respiration is not interfered with.

VI. In children, crying ensures free admission of chloroform into the lungs; but as struggling and holding the breath can hardly be avoided, and one or two whiffs of chloroform may be sufficient to produce complete insensibility, they should always be allowed to inhale a little fresh air during the first deep inspirations which follow. In any struggling persons, but especially in children, it is essential to remove the inhaler after the first or second deep inspiration, as enough chloroform may have been inhaled to produce deep anæsthesia, and this may only appear, or may deepen, after the chloroform is stopped (*vide supra* sub-paragraphs 2 and 9 of conclusions in paragraph 30). Struggling is best avoided in adults by making them blow out hard after each inspiration during the inhalation.

VII. The patient is, as a rule, anæsthetized and ready for the operation to be commenced when unconscious winking is no longer produced by touching the surface of the eye with the tip of the finger. The anæsthetic should never, under any circumstances, be pushed till the respiration stops: but when once the cornea is insensitive, the patient should be kept gently under by occasional inhalations, and not be allowed to come out and renew the stage of struggling and resistance.

VIII. As a rule, no operation should be commenced until the patient is fully under the influence of the anæsthetic, so as to avoid all chance of death from surgical shock or fright.

IX. The administrator should be guided as to the effect entirely by the respiration. His only object, while producing anæsthesia, is to see that the respiration is not interfered with.

X. If possible, the patient's chest and abdomen should be exposed during chloroform inhalation, so that the respiratory movements can be seen by the administrator. If anything interferes with the respiration in any way, however slightly, even if this occurs at the very commencement of the administration, if breath is held, or if there is stertor, the inhalation should be stopped until the breathing is natural again. This may sometimes create delay and inconvenience with inexperienced administrators, but experience will make any administrator so familiar with the respiratory functions under chloroform that he will, in a short time, know almost by intuition whether anything is going wrong,

and be able to put it right without delay before any danger arises.

XI. If the breathing becomes embarrassed, the lower jaw should be pulled or pushed from behind the angles forward, so that the lower teeth protrude in front of the upper. This raises the epiglottis, and frees the larynx. At the same time it is well to assist the respiration artificially until the embarrassment passes off.

XII. If, by any accident, the respiration stops, artificial respiration should be commenced at once,while an assistant lowers the head and draws forward the tongue with catch-forceps, by Howard's method, assisted by compression and relaxation of the thoracic walls. Artificial respiration should be continued until there is no doubt whatever that natural respiration is completely re-established.

XIII. A small dose of morphia may be injected subcutaneously before chloroform inhalation, as it helps to keep the patient in a state of anæsthesia in prolonged operations. There is nothing to show that atropine does any good in connection with the administration of chloroform, and it may do a very great deal of harm.

XIV. Alcohol may be given with advantage before operations under chloroform, provided it does not cause excitement, and merely has the effect of giving a patient confidence and steadying the circulation.

The Commission has no doubt whatever that, if the above rules be followed, chloroform may be given in any case requiring an operation with perfect ease and absolute safety, so as to do good without the risk of evil.

Edward Lawrie (President), T. Lauder Brunton, G. Bomford, Rustomji D. Hakim, members.

Cocaine Treatment of Yellow Fever.

Dr. James Thorington, late Resident Physician and Surgeon in charge of the Panama Railroad Company's Hospital at Aspinwall, Isthmus of Panama, records the results of his seven years' experience in the treatment of yellow fever on the Isthmus of Panama (*Amer. Jour. Med. Science*, Feb-1890,) where the disease was constantly under observation. He found that

(1) *Quinine*, except during convalescence, did much more harm than good.

(2) *Calomel* does good only at the beginning of attack, but does much injury if used later.

(3) *Castor oil and orange tea* (recommended by Cuba physicians), did good in some instances.

(4) *Pure juice of lime with small pieces of ice* (as recommended by the Panama Canal Co.'s doctors) gave more satisfaction than any of the above.

(5) *Jaborandi and veratrum viride* (highly recommended by Ford, of St. Louis,) although contra-indicated, were faithfully tried, but without success.

(6) *Gaod nursing, without medicinal treatment*, saved some.

(7) *Cocaine.*—Nausea and black vomit—not urinary suppression—are the most frequent causes of death in yellow fever. If the painful, exhausting attempts to empty the stomach could be relieved, he argued, the possibilities of recovery would be increased. His Assistant, Dr. J. E. Jennings, suggested *cocaine* (see also *Med. Record*, Nov. 26, 1887,) which was faithfully tried, and the success has, since then, been most marked and gratifying. His death-rate was formerly about 50 per cent.; since the adoption of the cocaine treatment, the death-rate has been reduced to 15 per cent. In fact, the three cases that died had suppression of urine.

Dr. F. A. Bettelheim, of Panama, to whom the cocaine treatment was recommended, writes (Feb. 5, 1888). Six cases; two deaths. The cocaine treatment "has worked like a charm. * * * I now feel that, with cocaine exhibited, vomiting is an unknown quantity in yellow fever; and, in addition, using the rectum for absorption of other medicaments, etc., we have made a decided move in advance. In all four cases that recovered, the albumin was over 50 per cent. In all the cases, however, the cocaine effectually stopped the vomiting."

So that, when cocaine is used from the start, black vomit, nor vomiting, nor efforts "to bring up that lump from the stomach," as patients speak of it, are not a part of the disease.

The chief remaining danger is suppression of the urine; but, in some cases, he has seen cocaine act as a diuretic. That cocaine acts as a diuretic, there can be no doubt. Da Costa pointed out this fact June 19, 1886 (*Med. News*). But it is not as perfect a diuretic as it is an anti-emetic. It is, however, a heart-tonic and stimulant.

To avoid failure of action, as an anti-emetic, cocaine should not be given immediately after nourishment, nor in pill or tablet form, as its effects may be thus carried beyond the stomach. Always give it in solution and on an empty stomach—at least ten or fifteen minutes before taking milk,

broth, or other nourishment. Then the sense of nausea disappears.

As to dose, he has found it necessary to give as much as a half, two-thirds, or even a grain, every half hour or hour —if the vomiting is not checked after the first or second dose of ten minims of a four per cent. solution.

He has never seen any toxic symptoms or bad effects of any kind follow the use of this drug *in this disease.*

To sum up, cocaine is almost a specific in yellow fever—taking away nausea and vomiting, acting as a diuretic, and as an excellent and sure heart-tonic and stimulant.

Insufflation of Quinia and Powdered Sulphur for Diphtheria.

That there is ground for apprehending something of a diphtheritic year in some sections of the Southern States we think the observant reader of facts will admit. At all events, apparently sporadic cases will be sufficiently often occurring in general practice to warrant the calling of attention to new practical suggestions on the subject of treatment of the disease.

Dr. Burghardt states (*Wiener Med. Wochenscrift*, Sept. 28 and Oct. 5, 1889,) that in 1882 he began the local application to the affected fauces of a fine powder composed of equal parts of quinia sulphate and washed flowers of sulphur—well rubbed together. Each of these remedies had been often used by other practitioners; but he claims priority in using this combination and in applying it by insufflation, etc., to the affected surfaces. Let the mucus and other secretions be first removed from the throat by a simple gargle or even by a drink of water. Then blow about two or three grains of the combined powder upon the parts most diseased, the adjacent surfaces, down the larynx, and into the posterior and anterior nares. Repeat the operation at least twice a day, and continue it, in smaller doses, for several days after seeming disappearance of the disease. Do not let the patient take *anything* else in the mouth for an hour or more after each insufflation. The powder has no odor, nor is it harsh in effect, and the child resists its application no more than he would the attempt to make any other bland application to the throat. After each insufflation, the patient becomes composed, feels fresher, swallows easier, and his appetite is improved. Prior to 1882, Dr. Burghardt had treated diphtheria of the throat with the usually prescribed agents, and his success and fatalities (about 70 per cent.) had been just about the same as other practitioners. But since he

adopted this insufflation of quinine and flowers of sulphur plan of treatment in 1882, in a total of 33 cases, varying in ages from one year to 24, he has not lost a case; and yet the epidemic of 1884, especially in Vienna, was a very severe one as to fatalities from the disease throughout the city. The diphtheritic membrane in some of these 33 cases covered all the mucous surfaces of the mouth, nose, and even spread upon the lips. With the insufflations, he combines, when needed, the treatment by gargles of chlorate of potash solution or lime water, the melting of small pieces of ice in the mouth, and cold applications to the neck. As systemic remedies, he uses tonic doses of tincture of iron, brandy, wine, etc., increasing the doses of iron if signs of diphtheritic blood-poisoning occur—adding ergot and lime or lemon juice to the treatment. After the first thorough insufflation, the fever heat decreased to nearly normal, and the debility disappeared. The diphtheritic membrane came off in bits of pieces, although a second, and sometimes a third, membrane would form before the diphtheritic membrane-making process entirely ceased. The only complications were middle ear catarrh and perforations of the drum in two cases. As far as practicable, the physician himself should make the applications.

Observations on the Functions of the Prostate Gland.

This paper (by Joseph Griffiths, M. B., C. M., University of Cambridge) contains an account of some very interesting observations by the author on the relation of the prostate gland to the sexual function. His most striking observations are those made on hedgehogs, moles, and other such animals, which have a strongly developed sexual passion, that gradually increases up to a certain season, and then as gradually decreases, until it finally disappears. He divides the state of animal sexual development into three stages, the quiescent, the intermediate, and the active. In the *quiescent stage*, the prostate is small, and the gland-cells proper form a comparatively small part of the whole—the greater part being long spindle cells, which the author believes to be connective tissue, rather than unstriped muscle. In the *intermediate stage*, the gland is much larger; the gland-cells, which, in the previous stage, were small and cubical, have now become much larger and of columnar form. A scant secretion of mucus is found in lumina of the alveoli, and well defined non-striated muscle cells are formed in the outer alveolar sheath. In the *active stage*, the prostate is many

times larger than in the quiescent stage. The gland-cells proper are columnar, large, and swollen. The lumen is filled with mucus and "corpuscles resembling leucocytes." Between the columnar cells, close to the basement membrane, are found scattered small round granular cells, which the author thinks have the same function as the demilune cells in the salivary glands and pancreas, viz: to replace the columnar secreting cells when these are used up. The outer of the alveoli have now a strong, well developed coat of unstriped muscle capable of squeezing out the secretions which had collected in the lumina. In other words, the prostate at this time is an actively secreting gland.

The author has also studied the effect of castration on the prostate, and finds that, after removal of the testicles, the gland-cells of the prostate atrophy and the connective tissue closes in on the alveoli of the gland, so that only narrow streaks of shrunken gland tissue remain to mark the once actively secreting lobules. The author has made no observations on man, but quotes several authorities who have found that the prostates of eunuchs very much diminished in size. All these observations tend to show that there is some relation between the secretion of the prostate and the sexual function. Its secretion is said to resemble that of the seminal vesicles, and, it may be, plays a more prominent part than has heretofore been ascribed to it. The enlarged prostate of old age is no exception to this, for it is the connective tissue, not the gland-cells, which proliferates.—*Brooklyn Med. Jour.*, *Feb.*, 1890.

Nitro-Glycerin for Asphyxia Due to Gas.

Dr. F. X. Dooley, of Washington, D. C., states (*N. Y. Med. Jour.*, Feb. 8, 1890,) that, with Drs. Sowers and Burwell, he was called to a woman, æt. 47, who had received over six hours' dose of illuminating gas (from a single burner?) in a small room, and she was as nearly lifeless from asphyxia as possible without being entirely gone. A hypodermic of a fiftieth grain of nitro-glycerin was administered, which acted like a charm, and instantaneously. Three hours later a second dose was given, and in three or four hours later she had recovered. He received the information of the value of nitro-glycerin under such circumstances from a communication to the same journal by Dr. Kloman, of Baltimore, Maryland.

Cystitis in the Female.

We find three new methods of procedure lately recommended by men of prominence, who can be relied upon. The means are simple, and can be carried out by any physician with ease.

Iodoform.—Dr. M. L. Frey, in *Wiener Medin. Presse*, strongly recommends the following:

℞.—Iodoform ..... ℥ xij
Glycerinæ ..... ℥ x
Tragacanth ..... gr. xx
Aquæ destillat ..... ℥ iiss

M.—Ft. emulsio.

Wash out the bladder well with tepid water till it comes back clear. Then inject a half pint of warm water, in which has been dissolved a tablespoonful of the above emulsion. This injection should be repeated every three days. Usually, four injections are sufficient to cure.

Dr. C. J. Edgar, Sherbrooke, Que., says (*Montreal Medical Journal*, Jan., 1890): A few weeks ago, there appeared in some medical journals a notice of the treatment of chronic cystitis, by Dr. V. Moestig-Moorhof, of Vienna, with iodoform injections. Having at the time several cases of decidedly chronic cystitis, which did not improve under ordinary treatment, he treated three with iodoform injections. The bladder was first washed out with moderately hot water as usual; then—

℞.—Iodoform ..... ℥x
Glycerin ..... ℥j
Tragacanth gum ..... gr. j
Distilled water ..... ℥ ij. Mix.

Sig.—One tablespoonful to a pint of lukewarm water, well stirred, for one injection—injection made every second day.

The first part of the mixture was injected and held about half a minute, until the iodoform had settled, and was then allowed to come away clear. The latter part was retained as long as possible without pain.

The day after the first injection the patients all agreed in finding micturition less difficult, less painful, and much less frequent. They had all noticed also that the urine had deposited a yellow sediment—the iodoform. The effect of the second injection was still more marked, and the third injection completed the cure, leaving them perfectly free from any symptoms whatever of their old trouble. Three other cases were then put on the same treatment, with the same

result, excepting that the two worst cases required five injections before they confessed themselves quite cured. Of these cases three were gonorrhœal. All had been under treatment for periods ranging from six months to three years. The treatment in these cases was alike for all, independent of their causation, and was followed by a uniformly good result. In a later case, the iodoform was simply mixed with warm water and injected, but the patient—a male—complained that the gritty powder hurt him in coming away, and was stuck in masses like little calculi. The effect on the disease, however, was identical with those mentioned before.

Saccharin.—Dr. Andrew H. Smith, of New York, reports (in *Medical Record*), several cases in which the urine was alkaline and offensive, with much ropy mucus, and such severe tenesmus, that injections into the bladder could not be used at all. He gave five grains of saccharin three times a day. In one day the urine was neutral, in five days acid, and in ten days the patient was entirely cured. It is very prompt in action, renders the urine acid, lessens quickly, and soon stops the offensive smell, and relieves tenesmus. There is no doubt about its marked antiseptic action.

Creolin.—Dr. Parvin (in *Medical News*), says creolin is especially useful in cystitis, following the use of the catheter:

℞.—Creolin..... .... ʒ ij.
Aquæ. .... O i. Mix.

The water should be warm and the irrigation of the bladder thorough. He uses for injection a small glass funnel, to which is attached an ordinary soft catheter by a short rubber tube. "Let the funnel, tube and catheter be filled with the solution, which should be warm, and the funnel held so low that no fluid will escape from the catheter before its introduction into the bladder; this precaution is taken to prevent wetting the patient's clothing, while previous filling the funnel and tube is done to prevent the introduction of air into the bladder." The irrigation should be used once a day. In chronic cases the solution should be made a little stronger, while in very sensitive cases it can be reduced one-half.

Creolin is a black syrupy-looking liquid with an odor of crude carbolic acid. It is composed of various substances, and hence the preparations of different makers are not always uniform. Pearson's is the best. It mixes with water, forming a dirty white emulsion, from which a small amount

of the black liquid is precipitated and not re-dissolved. It is cheap, and, being powerful, is useful as a household germicide and disinfectant. A one half to one per cent. emulsion will destroy germs. As an antiseptic, it is used in 2 per cent. solution, equivalent to a 1 to 20 solution of carbolic acid. It is disagreeable for instruments, as the mixture is milky and hides them, and it makes them very slippery. This last quality causes it to be very excellent for vaginal injections, as it leaves the parts soft and lubricated, not hard and dry as does corrosive sublimate. This makes a good antiseptic solution:

℞.—Creolin.. .....ʒ j.
Aquæ .....O iij. Mix.

In cases of poisoning from creolin, the nervous system and kidneys are affected. Injections of a solution, ʒj of creolin to two pints of water, are highly spoken of in dysentery. It relieves the tenesmus and removes the blood from the passages.

Of these remedies, it would seem that creolin is best in acute and sub-acute cases; iodoform will give best results where the bladder walls are roughened and thickened from inflammatory changes in chronic cases; and that saccharin is useful in very sensitive, acutely, inflamed cases, and whenever we wish to render the urine acid and antiseptic.—*Dixie Doctor, Jan.*, 1890.

New Method of Delivering Breech Presentations.

Mars, of Krakau, describes a new method, by which he has succeeded in three cases in extracting the presenting breech, when he had failed by the ordinary manual methods. In his first case the breech presented, S. L. A., os fully dilated, breech arrested at superior strait, beginning acute œdema of the lungs in the mother. Failing to extract by means of the fingers hooked into the groins and by other manual methods, he adopted the following procedure: Supporting the fundus with the left hand, he introduced his right hand flatwise within the uterus between the uterine wall and the child's sacrum, until the hand was high enough to enable him to grasp the fœtus with the thumb and little finger just above the iliac crests, while the other fingers were extended along the fœtal spine. He then drew upon the fœtal trunk during the pains, which pressed his hand firmly against the child's body, until the breech was brought to the pelvic floor, when the fœtus was easily extracted.—*Boston Med. & Surg. Journal.*

Chloralamid—The New Hypnotic.

It is hard to keep up with the new productions of the chemists to supply the demand for something new. Chloralamid is the latest of the hypnotic group, which was introduced to the American profession during the latter part of 1889. It is an admixture of chloral anhydrid and formamid. It is a somewhat bitter white crystaline, readily soluble in alcohol, but requires several times its own weight of cold water for solution; it dissolves more rapidly in *warm* water. It remains unchanged on the addition of weak acids or silver nitrate; but an alkali will decompose an aqueous or alcoholic solution. Hot water (148° F.) also decomposes it. It is not only insoluble in milk, but the mixture sticks to the sides of the glass, and is difficult to swallow.

The dose varies from a scruple to a drachm—the exact dose depending upon the cause of the insomnia; usually, about thirty grains will suffice. Some prefer to give it in capsules. Twenty grains will dissolve in a drachm of rectified spirit in about fifteen minutes, and water may be added to this solution without reprecipitating the drug. The patient can dissolve the dose in a little brandy, add water to suit his taste, and take it just before going to bed. It generally induces sleep in about half an hour or three quarters. If the patient gets to sleep at regular bed hour (about 10 P. M.), under its influence he most probably will sleep quietly till morning.

Its advantages over sulfonal are that it is only half the price, and more rapid in its hypnotic effects. It is not so difficult to dissolve as paraldehyde, nor so "nasty" to smell or taste.

No ill effects, contra-indicating its use, have followed its administration. In two cases of melancholia, however (referred to by Dr. Mayberry, of Hartford, Conn.—*N. E. Med. Monthly*, Feb , 1890,) there was a sense of fulness in the head and slight dizziness, and slight nausea in one whose stomach, however, was irritable before-hand. There was no marked pulse-rate change, and the blood-pressure was diminished but little. The respiratory centres in the medulla appear to be but little, if at all, affected. Nor does it seem to produce special changes upon the various secretions or the temperature. No "habit" seems established by its frequent use which renders it difficult to discontinue its use. It appears to be about the nearest approach yet made towards a pure and harmless hypnotic. Depressing effects nor headache have followed its use a single time or several times.

Peroxide of Hydrogen a Solvent for the Membrane of Diphtheria.

Dr. George W. Major, of Montreal, Canada, says that solution of peroxide of hydrogen, or hydroxyl in aqueous solution, has been used in France as a surgical dressing for ten years. Dr. Love, of St. Louis, was the first to call attention to it as a valuable agent in the treatment of diphtheria. He employed it in a solution containing from 0.5 to 3 per cent., diluting the medical "ten volume" peroxide with two or three times its bulk of water. Of its value in clearing away and effectually deodorizing the decomposing exudate in cases of diphtheria, he speaks in the most emphatic terms.

Dr. Glasgow, of St. Louis, has used hydroxyl for the past three years with very satisfactory results. He uses it locally as well as constitutionally in nasal, naso-pharyngeal, faucial, and laryngeal diphtheria.

Dr. Major's experience of the remedy extends over a period of two years. He has used it in aqueous solution (formula $H_2 O_2$) in 22 cases of diphtheria. The cases were all of more than average severity with decided septic tendency. The nasal chambers were invaded in fourteen.

To sum up: Hydroxyl possesses the following advantages: (1) It offends neither the sense of taste nor smell—being tasteless and odorless; (2) When applied locally, it causes no irritation and occasions no pain; (3) When swallowed, it is harmless, as it is not poisonous; (4) It is a powerful antiseptic and deodorizer; (5) It in no way precludes the simultaneous use of any other local remedy; (6) It is a perfect solvent for the exudate of diphtheria.

When used locally, the membrane seems to corrode, and comes away in fragments of a more or less porous character. He has seen it remove membrane as quickly as it could form. In nasal cases, it keeps the nose free from membrane and gives the bichloride or other solution a chance to act. In the most offensive cases, it deprives the discharges of their unpleasant odor. In the larynx, it occasions a little alarm by the escape of gas as it comes into contact with the membrane, but it does not, in any way, interfere with respiration.

He generally commences its use as a 60 per cent. solution, increasing to the full strength of the so-called "ten volume" peroxide of hydrogen. When used internally, the dose is ½ to 2 drachms.

Treatment of Hæmorrhoids.

Kossobutsky prescribes (*Revue de Therapeutique*):

R.—Chrysaroline	0	grammes,	8.
Iodoform	0	"	3.
Extract of belladonna	0	"	3.
Vaseline	25	"	

M.—Sig.—Apply.

In the case of internal hæmorrhoids, he uses the following suppositories:

R.—Chrysaroline	0	grammes,	.08.
Iodoform	0	"	.02.
Extract of belladonna	0	"	.01.
Cacao butter	2	"	
Glycerine, q. s.			

M.—Make suppositories.

If hæmorrhage is profuse, tannin is added. The author has seen the most intense pains and hæmorrhages disappear in three or four days, and the trouble itself almost completely relieved in three or four months.—*Médico-Chirurgicale—Times and Register, Jan.* 18, 1890.

Uses of Valerianic Ether (Vial).

Valerianic ether, discovered by Otto, was first applied as a therapeutic agent by the distinguished chemist, Vial. The *pure* valerianic ether, prepared by M. Vial, is less volatile than ordinary ether, and has the appearance of a heavy colorless oil; its density is 0.894 at 13° C.; the odor is penetrating, and the taste recalls somewhat that of the lemon. In this concentrated form, however, it is unfit for internal use, and, on this account, its strength is attenuated by the addition of sulphuric ether, which gives a better preparation of *medicinal* valerianic ether (Vial), which is perfectly safe and reliable. As a prompt anti spasmodic, this preparation is best dispensed in the form of a capsule containing about 4 drops, which is easy to swallow, and well adapted for preserving its full activity for any length of time.

The valerianic ether contained in such capsules is less volatile than ordinary ether, its effects are more energetic and permanent, while it is certain in its action and more convenient to administer than valerian.

The following quotation, from the *Tribune Medicale*, indicates the cases in which its administration is most generally indicated:

" First used in epileptic hysteria with good results, it was shown that it might be applied equally well in simple cases

of hysteria. Before and during the functional excitement of menstruation, characterized by weak pulse, giddiness, vapors, spasms, muscular trembling, and nervous irritability, it renders considerable service. It may be safely recommended to ladies susceptible to such accidents, and in those general cases of nervous excitability characterized by neuralgia, nervous headaches, or migraine, cramps of the stomach, digestive troubles, nervous retching and vomiting."

We have been using Vial's Capsules of Valerianic Ether, as manufactured by Messrs. Rigaud & Chapoteaut, of Paris, and have been so well pleased with them in the classes of cases indicated that we feel that this note about them may be useful to others.

From 4 to 6 capsules may be taken daily, according to intensity of the attack. One or two capsules should be taken at a time in a spoonful of water a little before the attacks if they occur at repeated intervals.

Strophanthus for Goitre.

The *Kansas City Medical Index* (Jan., 1890,) says that Dr. S. T. Yount, of Lafayette, Ind., states [where?] that he has successfully treated five cases of goitre with the tincture of strophanthus, in ten-drop doses, gradually increased to sixteen, administered three times daily. This treatment was usually continued about two months. If this record becomes confirmed by the experience of others, this note will be well worth remembering.

Warner's Antiseptic Pastilles.

Following a suggestion made by Dr. S. Seiler in the *Medical Record*, Messrs. Wm. R. Warner & Co., the well-known pill and compressed pastille manufacturers of Philadelphia, are placing on the market antiseptic pastilles for the treatment of certain nasal affections. These pastilles are powerfully antiseptic and comparatively innocuous; also distinctly deodorant, bicarbonate, biborate, benzoate, and salicylates of sodium menthol, and oil of wintergreen, enter into their composition. One pastille makes two ounces of a lotion or spray for the nostrils, and is, according to Dr. Seiler, "sufficiently alkaline to dissolve the thickened secretion adhering to the nasal mucous membrane; and, as it is of proper density, it is bland and unirritating, leaving a pleasant feeling in the nose. As an antiseptic and deodorizer, it is far superior to Dobell's solution or any other non-irritating deodorizer and antiseptic."

To Remove Powder Stains.

Such blemishes are oftentimes so unsightly or disfiguring that any remedy that will remove them is worth remembering. According to *Medical Chips*, Dr. Ohmann-Dumesnil says that by painting powder stains with the following solution they will turn red:

℞.—Ammonii biniodidi.

Aquæ destillatæ.....āā ʒj. Mix.

Then, if these red stains or marks are painted with dilute hydrochloric acid, they will disappear.

Book Notices.

Medical and Surgical Memoirs, Containing Investigations on the Geographical Distribution, Causes, Nature, Relations, and Treatment of Various Diseases. 1855-1890. By JOSEPH JONES, M. D., Professor of Chemistry and Clinical Medicine, Medical Department Tulane University of Louisiana; Visiting Physician Charity Hospital, New Orleans, Etc. *Volume III. In Two Parts.* 8vo. PART I—Pp. 542; PART II—Pp. about 550. New Orleans, Lo. Joseph Jones, M. D. 1890. (Price, $8 for the Two Parts of Volume III. If taken in connection with Volume I and II, the three Volumes for $16.)

To attempt a review of such a work as this Volume, is to assume knowledge of facts which the reviewer must learn, for the most part, from the *Memoirs* themselves. We might wish the author had been more apt at compilation and condensation; for we fear but few will wade through the ocean-like mass of facts and figures which fill so many pages with dry detail. And yet we must add, that the page upon page of tables, statistics, reports of cases to their minutest detail, etc., become invaluable original information upon which the student or physician may safely build theories or doctrines for future guides to observation and practice.

The work, now that the labors of a patient and competent author have been completed, becomes invaluable for reference, and furnishes facts for study. The work should be in every hygienic and medico-geographical library.

While we encroach much upon the space usually allowed for any book notice, to do so, the reader will see the scope of the Two Parts of Volume III by the following Statement of

Contents, given on the title pages: Part I—"Endemic, Epidemic, Contagious, and Infectious Diseases; Measures for their Prevention and Arrest; Malarial Fever; Yellow Fever; Typhoid Fever; Asiatic Cholera; Small-pox; Varioloid; Varicella; Cow-pox; Vaccination; Spurious Vaccination; Measles; Scarlatina; Diphtheria; Phthisis: Pneumonitis; Syphilis; Alcoholism; Theoory and Practice of Quarantine; Relations of Drainage, Soil, Food, Water, and Climate, to Endemic, Epidemic, Contagious, and Infectious Diseases; Application of Measures for the Exclusion and Arrest of Yellow Fever, and Small-pox in the Mississippi Valley, Illustrated by the Quarantine and Sanitary Operations of the Board of Health of the State of Louisiana During 1880, 1881, 1882, and 1883.

Part II contains Monographs illustrating the following subjects: Philosophical Principles of Education and their Scientific Application to the Development and Perfection of the Medical Profession, Vital Capacity of the Human Lungs in Health and Disease; Contribution to Teratology, General Medicine, Diseases of the Nervous System, Congenital and Acquired Insanity; Advancement in the Treatment of the Insane During the Nineteenth Century; Treatment of the Insane in Louisiana; Medical History of the Insane Asylum of the State of Louisiana, 1848–1889; The Relation of Quarantine to Commerce in the Valley of the Mississippi River; The Use of Antipyretic Remedies in Febrile Diseases; Public and International Hygiene; Progress of the Discovery of Disinfectants and their Application for the Arrest of Contagion; A History of Maritime Hygiene, as Applied by the Great Naval Powers, Illustrated by eight Chromo-Lithographic Plates; twenty-one Maps and Charts; twenty-two Extensive and Elaborate Tables; and seventeen Engravings.

Laparo-Hysteropexia, centre le Prolapsus Uterin (Nouveau Traitement Chirurgical de la Chute de l' Uterus.) Par PAUL DUMORET. Ancien Interne en Medicine et en Chirurgie des Hopitaux de Paris. Etc. With eight Wood Cut Illustrations. E. Lecrosnier et Babè, Editeurs. Place de l' Ecole de Medecine. 1889. 8vo. Paper. Pp 168. Prièe, 3 fr. 50. (FromPublishers.)

In this thesis, the author holds closely to the teachings of his preceptor, M. Trelat, in advocacy of treating uterine prolapsus by opening the abdomen and by fixation by sutures of the uterus, etc., to the inner face of the anterior abdominal wall. Now that all the details of antisepsis are prac-

ticed by surgeons the world over, hysteropexia is not to be looked upon as a dangerous operation, if rightly performed; and if so performed, M. Dumoret thinks "it may be considered as the synonym of the radical cure of prolapsus uteri." He describes in full all the usual methods—emphasizing that of Prof. Trelat.

Ophthalmology and Ophthalmoscopy for Practitioners and Students of Medicine. By HERMANN SCHMIDT-RIMPLER, Professor of Ophthalmology, and Director in the Ophthalmological Clinic in Marburg. Translated from the Third German Revised Edition. Edited by D. B. St. John Roosa, M. D., LL. D., Surgeon to Manhattan Eye and Ear Hospital, etc. One hundred and eighty three Wood Cuts, and Three Colored Plates. New York: Wm. Wood & Co. 1889. Cloth. 8vo. Pp. 570. (From Publishers.)

This is Volume I of a Series of *Specialties* which Messrs. Wm. Wood & Co propose republishing—established works, edited to date by American authors recognized as specially qualified. Dr. Roosa has found it necessary to add only a very few notes to make the German teachings conform to the most advanced views and practices of American ophthalmologists. The work is systematically divided into four Parts. *Part I* contains general observations on the examination and treatment of the eye; errors of refraction and accommodation; amblyopia and amaurosis. *Part II* considers ophthalmoscopy—appearances of the healthy eye, and diseases of the optic nerve, retina, choroid and vitreous body. *Part III* takes up the subjects of glaucoma and ophthalmomalacia; diseases of the lens, conjunctiva, cornea, sclera, iris, and ciliary body; sympathetic ophthalmia, and suppurative choroiditis. *Part IV* is devoted to diseases of the ocular muscles, orbits, eyelids and lachrymal apparatus. A good index is appended.

Compend of Human Physiology. Especially Adapted for the Use of Medical Students. By ALBERT P. BRUBAKER, A. M., M. D., Demonstrator of Physiology in the Jefferson Medical College, Etc. Fifth Edition, Revised and Enlarged, with New Illustrations and a Table of Physiological Constants. Philadelphia: P. Blackiston, Son & Co. 1889. Cloth. 12mo. Pp. 188. Price, $1. (From Publishers.)

The growing popularity of these "*Quiz Compends*" is well illustrated by the fact that a fifth edition of this one has been demanded since the first edition was issued, only three

or four years ago The present is an enlarged edition—some 17 pages of new matter—and it is also a thorough revision of the statement of the fundamental facts in Physiology. This Compend Series is exceedingly valuable to students or practitioners who are preparing for examinations, etc.

Egypt as a Winter Resort. By F. M. SANDWITH, F. R. C. S., formerly Vice-Director of the Sanitary Department of Egypt London: Kegan Paul, French & Co., 1 Paternoster Square. 1889. Cloth. 12mo. Pp. 153. Price, 3s. 6d. (From Publishers.)

This guide-book has all the interest of the best written book of travels, while it contains information specifically well adapted to the invalid—with early phthisis, chronic bronchitis, asthma, gout, heart, kidney and hepatic diseases, anæmia, the neurotics, etc.—who can afford such trips. The reading of a book as well written as this awakens an interest in a country almost untravelled by Americans, and excites a desire for even pleasure-seekers to pass through the country.

Treatise on Diseases of the Nose and Throat. In two Volumes. By FRANCKE HUNTINGTON BOSWORTH, A. M., M D., Professor of Diseases of the Throat of Bellevue Hospital Medical College, New York, etc. Vol. I.—*Diseases of the Nose and Naso-Pharynx*. With 4 Colored Plates and 182 Wood cuts. New York: William Wood & Co. 1889. Large 8vo. Pp. 670. Cloth. (From Publishers.)

We are sorry not to have yet received Vol. II., and thus have announced in this notice the completed *Treatise* If Volume II. is as well prepared as Volume I., then this work on *Diseases of the Nose and Throat* will become the student's reference-book and the general practitioner's authority for the diagnosis and treatment of diseases of these upper air passages. In Vol. I. 38 chapters are devoted to diseases of the nasal passages, and 9 to those of the naso pharynx. Section 3 covers about 32 pages, and is filled up with plates, drawings, and diagrams, with text, descriptive of the external surgery of the nose. We are glad to see that the palate retractor of Dr. White, of this city, is properly drawn in this work, as several instrument makers have put upon the market as Dr White's retractor an instrument he has never invented, and which, if invented by another, he would not wish to be found in his office. White's retractor is simplicity and perfection; the imitations of some instrument makers are ridiculous. We cannot say more for the work

now under consideration than that every practitioner of medicine who pays the slighest attention to nasal troubles should own, study, and master the teachings to be found therein.

Treatise on Materia Medica, Pharmacology, and Therapeutics. By JOHN V. SHOMAKER, A. M., M. D., Professor of Materia, Pharmacology, and Therapeutics in Medico Chirurgical College of Philadelphia, and JOHN AULDE, M. D., Demonstrator in Clinical Medicine, etc., Medico-Chirurgical College of Philadelphia, etc. In two Volumes. Vol., *Devoted to Pharmacy, General Pharmacology, and Therapeutics and Remedial Agents not Properly Classed with Drugs.* Philadelphia and London: F. A. Davis, Publisher. 1889. Cloth, 8vo. Pp. 385—xii. Price, in cloth, $2.50; sheep, $3.25 (From Publishers.)

In announcing an unfinished work, we have to depend much upon the preface. This neatly-printed volume is divided into two parts. Part I. covers some 145 pages, and contains the Introduction and the definition and some general observations on Materia Medica, Pharmacy and Pharmacology, etc. Part II.—over 200 pages—is devoted to the consideration of remedial agents used in the treatment of disease not properly classed with drugs. This division includes such things or forces as electro-therapeutics, oxygen, hydro-therapeutics, masso-therapeutics, heat and cold, mineral waters, metallo-therapy, transfusion, hypnotism and suggestion, earth dressing, baunscheidtismus (peculiar form of counter-irritation), climatology, light, music, blood-letting, and suspension. A number of blank leaves of writing-paper are inserted for students' notes or practitioners' memoranda. Nothing short of a favorable estimate is to be expressed upon the work done in this first volume. We presume Vol. II., on Special Tehrapeutics, etc., will be soon forthcoming.

Hand-Book of Dermatology. For the Use of Students. By A. H. OHMANN-DUMESNIL, St. Louis College of Physicians and Surgeons, Etc. Illustrated. St. Louis: St. Louis Medical and Surgical Journal Publishing Company. 16mo. Ppp. 167. Cloth. (From Publishers.)

This little hand-book is an excellent one for students. It deals almost altogether with facts that are generally recognized, and not with theories or discussions. In fact, it was prepared mostly as a class-room book, but serves well to remind and to advise the physician what to look for and what

to do in cases of skin diseases. It is a very serviceable Compend—and with a good index for ready reference.

Wood's Medical and Surgical Monographs. Volume IV. No. 3. December, 1889. Contents: (1) *Practical Treatise on Baldness*, by Geo. T. Jackson, M. D.; (2) *The Sphere, Rights, and Obligations of Medical Experts*, by James J. O'Dea, M. D; (3) *Pathology and Treatment of Ringworm*, by George Thin, M. D.; (4), *Notes on Dental Surgery*, by J. Smith, M. D., LL. D.; (5) *Sounding for Gall-Stones, and the Extrusion of Gall-Stones by Digital Manipulation*, by Dr. Geo. Harley, F. R. S. Volume V. No. 1. January, 1890. Contents: (1) *Neuralgia; Its Etiology, Diagnosis, and Treatment*, by W. R. Gowers, M. D., F. R. C. S; (2) *The Prognosis of Diseases of the Heart*, by Prof. E Leyden; (3) *The Sputum. A Contribution to Clinical Diagnosis and Practical Examination for Tubercle Bacilli*, by Peter Kaatzer, M. D.; (4) *Hypnotism. Its Significance and Management Briefly Presented*, by Dr. August Forel; (5) *The Forms of Nasal Obstruction in Relation to Throat and Ear Diseases*, by Grevill McDonald, M. D. New York: Wm. Wood & Co.

These *Monographs* are so useful to the practitioner, and are so cheap, that we wonder that every one is not a subscriber. The titles given above of articles in only two numbers show how well selected are the papers. One dollar a number, or $10 a year for the twelve months.

Essay on Medical Pneumatology. By J. N. DEMARQUAY, Surgeon to the Municipal Hospital, Paris, Etc. *Translated with Notes, Additions, and Omissions.* By Samuel S. Wallian, A. M., M. D., Etc. Illustrated with Fine Wood Engravings. Philadelphia and London: F. A. Davis, Publisher. 1889. 8vo. Pp. 300. Cloth, $2. Russia, $3. (From Publisher.)

Demarquay's original work, published in 1866, was a "Physiological, Clinical, and Therapeutic Investigation of the Gases," and covered about 800 pages. But as it was foreign to the translator's purpose to speak specially of other than Oxygen, Nitrogen, and Hydrogen gases, in the main, he has omitted all of the original that does not relate directly to these gases and their uses in medicine, surgery, etc. In fact, after the general considerations on the uses and applications of the gases therapeutically, almost all the other parts of the original essay are omitted. Dr. Wallian, in his Notes and Additions, brings the subject of pneumatology well up to date in all practical matters relating especially to the uses and methods of administering the different gases, etc. The subject is one that has been too long neglected by

the general profession, and we hope this good guide-book will stimulate new interest and studies.

Hand-Book of Obstetrical Nursing, for Nurses, Students and Mothers. By ANNA M. FULLERTON, M. D., Demonstrator of Obstetrics in Woman's Medical College of Pennsylvania; Superintendent of the Nurse-Training School of Woman's Hospital of Philadelphia, Etc. Philadelphia: P. Blakiston, Son & Co. 1890. 12mo. Pp. 214. Cloth. Price, $1.25. (From Publishers.)

This Hand-book comprises the course of instruction in obstetrical nursing given to the pupils of the Training School for Nurses of the Woman's Hospital of Philadelphia. We have examined this book with much interest, and most earnestly wish that all lying-in nurses would familiarize themselves with its teachings. In fact, the doctor himself will find in it many points of information which oftentimes will be serviceable to him. It is thoroughly practical, and is written in a style to be easily comprehended in every detail. It is a first-rate guide-book for the obstetric room and for a period of a year or two after the confinement.

Editorial.

The Board of Visitors of Western Lunatic Asylum (Va.)—Miss C. L. Haynes, M. D.,

Now employed (in what capacity is not stated) at the Massachusetts State Female School, at Palmer, has just been elected Assistant Physician in the Western (Va.) Lunatic Asylum at Staunton. Her salary has been fixed at $750 a year, with a home in the Asylum.

Dr. Haynes is unknown to the profession of Virginia, and it appears singular that the Board of Visitors of this important medical institution should have been in such precipitate haste to fill a vacancy by the election of a person who is not yet shown to be qualified to pass examination before the Medical Examining Board of Virginia. It will be remembered that, only a few years ago, the Board of Visitors of the Central (Va.) Lunatic Asylum, near Petersburg, too hastily elected a gentleman who had not qualified to practice by previously passing the examination by the Medical Examining Board of Virginia, and the Board of Visi-

tors to the Asylum had to rescind its action and elect another physician. We cannot understand how the Board of Visitors of the Western Lunatic Asylum of Virginia, who seem to be ignorant of the laws governing the practice of medicine in their own State, and presumably of the qualifications of Miss Haynes, could have been induced to commit themselves to an election so important to the medical interests of so many families in Virginia without first having all the positive evidences attainable that the party elected Assistant Physician is competent to assume the responsibilities and duties incident to the position. The Board of Visitors to the Asylum is not composed of medical practitioners, nor are we aware that the present Board is competent to judge of medical ability. Hence, in the name of the Profession of Virginia, as well as in the interests of the afflicted citizenship of this State, we protest against such assumption on the part of the Board of Visitors of the Western Lunatic Asylum.

We are not aiming these remarks at Miss Haynes, for we do not know anything about her. But we are crying aloud against the action of the Board of Visitors, not composed of medical men, in not seeking the opinion, and in not giving ear to the voice of the medical profession of the State in the selection of medical men or women for medical positions where medical ability is especially required for the treatment of diseased conditions of the human system. Common sense and common courtesy yield to the Bar the right to nominate the important judges. Like judgment and courtesy should be extended to the medical profession in the selection of a purely *medical* official.

The Mayor of Philadelphia (Fitler)

Is said to have removed from office the Senior Surgeon of the Philadelphia Hospital, Dr. J. William White, for no other reason than that his father would not become his political tool. If the statement be true, with the *Medical Record*, "we sincerely trust the Directors of Charities and Correction of Philadelphia, (who have control in such matters,) will not lend themselves to the spite of Mayor Fitler, but that they will refuse to obey his order to remove a conspicuously efficient medical officer simply because the father of the latter has incurred the autocrat's displeasure."

Dr. White is a gentleman of too much renown and ability to be tossed overboard to satisfy the venomous whim of a man who does not even recognize his own responsibility to humanity in such an effort to remove.

The Influenza Epidemic in the South

Is passing over, and has not been materially fatal in its effects—as it has been North and Northwest of Virginia and Kentucky. It has seldom required the physician's attendance more than one or two visits. Its most common form of manifestation in this immediate section has been such as to remind one of what he has heard and read about dengue or "break bone fever"—for that Southern disease has never been at all common in Virginia—many practitioners of large experiences, indeed, never having seen a case. Neither coryzal nor catarrhal symptoms have been common, except in the aggravation of these conditions when they pre-existed. The only *constant* sign or condition that we observed in our patients (and this seems to have been the observation of all the other practitioners of this city) was a furred or "bilious tongue," almost invariably attended by a torpid condition of the bowels. The other attendant symptoms consisted generally of headache—such as usually attends "bilious headache," yet without the usual sequel of "bilious vomiting"—and muscular pains that struck down into the bones and joints themselves, giving rise to the common description: "I feel like every bone in my body is about to break, and every muscle feels as if it had been beaten." Without treatment, this state of feeling required an average of about a week to pass off, which was followed by a sense of great muscular weakness. Under treatment, with an initial dose of from eight to twelve grains of calomel and as much or more bicarbonate of soda—enough to "bring away a good bilious action"—and the every three or four hours' use of a capsule containing about a grain and a half of quinia sulphate and three or four grains of antifebrin, or the same quantity of phenacetin or a grain or two more of antipyrin—under such a treatment, we do not recall, more than twice, the necessity of repeating the visits to the same patients during the five weeks or more prevalence of the epidemic, except to give, for a few days, some Robinson's Coca Wine or Liebig's Coca Beef Tonic. Of course, there have been exceptions to such a necessity in the city—two or three cases, indeed, being threatened by death itself; and in some cases of severe diseases from other causes than "the grip," the addition of the epidemic disease has, in reality, hastened the deaths.

Of the various forms of manifestation that came directly under our professional care that were out of the ordinary run were four cases of the erythematous form; one case of

apoplectiform coma in an old lady; two cases of severe renal neuralgia; one of apparently developed peritonitis; several cases of migraine, and still more of acute rheumatism. In several cases there were "grits in the eyes"—even marked granular conjunctivitis in some. In nearly every case, where the patients were previously unaware of such a condition, slight tapping of closed lids revealed the fact that the eye-balls themselves were sore. In one case, the lachrymal glands were so stimulated in a middle-aged colored man as to make him describe his condition as "all day long and all night long, I was jes' cryin' for nuthin'."

The vast majority of cases of the disease in Richmond occurred in white adult males. White school boys were more frequently the subjects than school girls. Comparatively few aged people or adult females, and few infants, had the severest forms of the disease—although, among these, there was quite general "complaining"—as many expressed their indispositions.

Several of the doctors of the city had about the severest spells of "la grippe." Indeed, three of the seventy-five or more, who had the disease in varying degrees of intensity, had to fight against the development of pneumonic conditions.

The above running notes, from the practitioners' standpoint, are not intended as in any way involving the discussion of causes and effects, nor as in any way taking the place of systematic descriptions of the epidemic, which, we hope, will be prepared for permanent historic record. The present epidemic has undoubtedly been unlike anything in the shape of an epidemic which practitioners of twenty-five and thirty years' residence in this city have heretofore seen; although almost every one has had an individual case or two, some time in his practice, of which he is now reminded.

Inspection of Yellow-Fever Centres.

Surgeon-General J. B. Hamilton, of U. S. Marine Hospital Service, and Dr. Horlbeck, of the Charleston (S. C.) Board of Health, are making a mid-winter inspection of the yellow-fever habitats in Cuba. They will also inspect the quarantine stations of Key West, Tampa, Sanford, and other exposed points in Florida.

Dr. Daniel, President of the Florida State Board of Health, denies that the case reported as one of yellow-fever in Jacksonville, Fla., December 31st, 1889, was even of the nature of that disease.

Notes About Some State Medical Examining Boards.

The seven battles which have been fought for the establishment and professional support of Medical Examining Boards in several of the States have won peace, and the results are promotive of scientific interest.

ALABAMA.—We append a tabulated statement of the work done by the Boards in this State during the last official year, which we have compiled from the *Transactions of the Medical Association of the State of Alabama for* 1889, which shows, by results, a decided improvement in the standing of candidates who came before it last year, as compared with results of the year before:

NAMES OF COLLEGES, ETC.	No. of Applicants.	Certificates.	
		Granted.	Refused.
Medical College of Alabama	13	13	
Atlanta Medical College, Georgia	5	5	
Southern Medical College, Atlanta, Georgia	2	2	
Medical Department University of Georgia	1	1	
Georgia College of Eclectic Medicine	1	1	
Kentucky School of Medicine, Louisville	3	2	1
Louisville Medical College	5	3	2
Medical Department, University of Louisville	5	5	
Medical Department, Uniuersity of Louisiana	1	1	
Medical Department, Tulane University, New Orleans	2	2	
Baltimore Medical College, Maryland	1	1	
College of Physicians and Surgeons, Baltimore, Md	1	1	
University of Maryland, Baltimore	2	2	
Bellevue Hospital Medical College	2	2	
Medical Department of University of City of New York	1	1	
College of Physicians and Surgeons, New York	1	1	
Long Island College Hospital	1	...	1
Medical College of Ohio	1	...	1
Med. Dept., University of Penn-ylvania, Philadelphia	2	2	
Jefferson Medical College	3	2	1
Medical College of South Carolina	1	1	
Memphis Hospital Medical College, Tennessee	2	2	
University of Nashville and Vanderbilt University	8	8	
Medical Department University of Tennessee	4	3	1
University of Virginia	1	1	
University of Michigan (Colored)	1	1	
Laval University of Quebec	1	1	
McGill University of Montreal	1	1	
College of Physicians and Surgeons (State not given)	1	1	
College not named	1	1	
Undergraduates (examined by the State Board)	1	...	1
Totals	75	67	8

Percentage of rejections, 10.6. During the previous year, the percentage of rejections was about 25.5.

Florida.—In our November number, 1889, we referred to a misfortune in the wording of the Florida Medical Examining Board law, wherein it appeared to omit the requirement of examinations on the Practice of Medicine. We are credibly informed, however, that the Medical Examining Board of the Seventh Judicial District of that State have, in their construction of the law, included in their examinations questions on Practice of Medicine under the head of Therapeutics, etc. The same authority informs us that fully 35 per cent. of those examined were not granted licenses. Dr. Frank H. Caldwell, of Sanford, Fla., is the Secretary of that State Board.

Maryland.—The profession of Maryland, represented by such devoted workers and eminent practitioners as Drs. T. A. Ashby, Jr., Edwin Michael, Geo. H. Rohé, and others, of Baltimore, etc., has succeeded in getting a bill before their Legislature, now in session, calling for the establishment of a State Board of Medical Examiners, very much like that, in all essential points, of the State of Virginia. We wish the effort success.

North Carolina.—From the Secretary of the Medical Examining Board of the State of North Carolina, Dr. Wm. H. Bellamy, of Wilmington, we learn that during the Annual Session of the Board, 1889, there were 63 applicants for examination; 46 were licensed; 8 were rejected, and 9 *were allowed* to withdraw their applications for license. Thus, practically, there were about 26 per cent. of rejections.

Virginia.—In our November number, 1889, we stated the number of rejections at the then recent semi annual examinations of 26 applicants, to be 16, and 2 withdrawals—practically, about 60 per cent. of rejections.

All of this shows the imperative need of such Examining Boards.

Demand for Physicians in Florida.

One of our Northern exchanges is responsible for the statement that there is a demand for physicians in Florida. But whoever prepares himself to go there in answer to this notice should not forget that he will have to pass examination before the newly-organized Board of Medical Examiners of that State. A good opening exists at Anthony, Fla., as Dr. W. H Stewart, of that place, wishes to change his home to another State, where his interests are more specifically centred.

Proposed Board of Medical Examiners for District of Columbia.

Senator Ingalls has introduced a bill in the Senate establishing a Board of Medical Examiners for the District of Columbia. The bill provides that the Board shall consist of ten physicians or surgeons, three dental surgeons, and, in addition, five homœopathic practitioners of medicine. The term of office shall be four years. The members are to be appointed by the District Commissioners, and the Board is to prescribe rules and regulations for the examination of all candidates for the practice of medicine appearing before it. The Board is to examine all persons of either sex appearing before it; and, when an applicant shall have passed a satisfactory examination, the President of the Board shall grant to such a person a certificate to that effect. Examinations are to be practical, and no candidate is to be kept waiting for an examination for a longer period than thirty days. Re-examination can be held at the expiration of three months. Any person obtaining a certificate from the Board shall register the same at the health office, and shall then be allowed to practice the branch in which he has passed the examination; and no person shall commence the practice of medicine, surgery, or dentistry, in the District, who has not first obtained such a certificate.

No person not a registered practitioner of medicine shall offer for sale any drug, nostrum, etc., without first obtaining a certificate from the Board setting forth that the said article may be offered for sale.

Violations of the act are to be punished by a fine of not less than $20 nor more than $100, or by imprisonment for not less than thirty days nor more than 365 days or by both. Nothing in the act is meant to affect the business of registered pharmacists or of physicians called in for consultation from other cities.

Mississippi Physician's Tax Exemption Bill.

A bill, which is being strongly opposed on the ground of "class legislation," has been introduced in the Mississippi Legislature, providing for the exemption of practicing physicians from personal taxation.

Dr. Eugene Grissom,

Lately of Raleigh, N. C., and an alienist of national reputation, has recently been the guest of Dr. C. H Hughes, of St. Louis, Mo. It is stated that these gentlemen will soon establish a private hospital for the treatment of mental alienates.

Contract Practice in New Orleans.

The *New Orleans Medical and Surgical Journal* editorially reminds us that it is common in that city for physicians to practice in families and among members of the so-called benevolent societies at a stipulated price per year. The system tends to underbidding, either directly or indirectly, and thus destroys, among professional men, the proper *esprit de corps*. The evil has grown, year by year, until now it seems impossible to overcome it. In Detroit, it seems that an effort is being made to adopt the contract system for general purposes. Our friend of the Crescent City expresses the hope that "our brethren of Detroit will profit by the bitter experience of New Orleans. If they are blind enough to let the evil gain a foothold, then it will become impossible to eradicate it, for it begins its deadly work by destroying the only thing that could overcome it, namely, professional *esprit de corps*." Such views, coming from years of experience and observation, should be well considered before a community of doctors, tempted to enter into general family or Society's practice by contract for stipulated sums per year, falls into the trap where tempting bait is hung on the hook. Yet we are convinced that, in some instances, especially where the individual workmen, etc., are too poor to pay professional fees, etc., some sort of well-guarded contract system is not only allowable, but the best policy for the profession. But always be on guard, lest each contract is not less and less professional in its interests. Only view contracts as, in some instances, "necessary evils."

The Medical Society of South Carolina

Celebrated its one hundredth anniversary December 9th, 1889. For the ensuing year Dr. T. Grange Simons, of Charleston, was elected President, and Dr. Chas. M. Reed, of the same city, Secretary. In fact, the Society is now practically a local Society. It is the third oldest Medical Society in the United States—being antedated only by the Massachusetts Society and the College of Physicians of Philadelphia. Dr. Cornelius Kollock, of Cheraw, S. C., delivered the Centennial Oration, after which a handsome banquet was partaken of. This Society is not to be mistaken for the present State Medical Association, of which all the members of the first-named Society are also members.

Dr. C. S. Ayres

Has been elected President of the Cincinnati Polyclinic Graduate School of Medicine.

Nashville Meeting of American Medical Association.

The Forty-first Annual Session will be held in Nashville, Tenn., commencing at 11 A. M., Tuesday, May 20th, 1890, and continue through to May 23rd. The Committee of Arrangements (Dr. W. T. Briggs, chairman,) have already perfected their arrangements, providing for an unusually large attendance. The Secretary of the Association, Dr. W. B. Atkinson, of Philadelphia, Pa., is trying to arrange with the various trunk lines of travel for special rates, etc.; and, to secure his purpose, he specially requests that all parties proposing to go to the session should at once communicate the fact to him by postal card or otherwise—stating the exact number of persons, ladies and gentlemen, who will go, and by what routes they wish to travel. This may seem a trivial matter to some, but prompt attention to this request will show how important it is to the purses of all. The Committee to provide spaces, etc., for the "Exposition of Pharmaceutic, Surgical, and Sanitary Products and Appliances"—Dr. J. Berrien Lindsley, of Nashville, chairman—has well done its part, and have secured the ample Amusement Hall for the purpose. Parties proposing to have "exhibitions" should apply to him *at once*, stating the character of their proposed exhibits, in order that they may be assigned to their respective groups, etc. Every indication is that this Forty-first Session will be a grand success.

The Bowden Lithia Springs Co.

Make such remarkable claim for the constituent elements in the water of their Springs in Georgia as to compel the direction of attention to their advertisement. An imperial gallon of water contains 173 36 grains solids, of which 15.20 grains are *magnesium bromide* and 5.29 *potassium bromide*—over 20.5 grains of *bromides* in a gallon of water. Besides 1.67 grains lithium bi-carbonate, each gallon contains .73 grain of *magnesium iodide*, and .28 grain of *strontium sulphate*. This composition, with reference especially to the amount of bromides, makes this water the most remarkable and useful of natural mineral waters—no other spring water known containing as much as one grain of bromides to the gallon. The Resident Physician at the Springs cordially invites visits and inquiries from his professional friends from all parts of the country. The Springs are 21 miles west of Atlanta. Ample hotel accommodations will be prepared for the summer visitors. The qualities of these Springs were incidentally discovered and chemically tested only during October, 1889.

Medical Sealed Proposals.

"The Board of Commissioners of the County of Ohio, Wheeling, W. Va.," publish in the daily papers of their city a "*Notice to Physicians*," which is just about two steps more than we have ever seen taken by parties who did not wish to ruin their cause or give offense to reputable professional men. It states that "*Sealed proposals* will be received at this office * * * *from Physicians for attending* and furnishing medicines and drugs to *all persons confined in the County Jail as lunatics*, or persons charged with felonies or misdemeanors, for the term of one year. * * * The person receiving the appointment shall give bond, with sufficient surety, to be approved by the Board, for the faithful performance of the trust and agreement." The compulsions of poverty, or some like influence, may lead some reputable doctor to send a "sealed proposal" in response, but it is scarcely probable that a doctor, moved to respond by such a pinching necessity, could give the requisite bond and surety. But it is far more probable that some pedagogue of a quack or charlatan will respond, and thus add professional disrepute to the position and services which should call for the best of procurable professional talent. *The Boston Medical and Surgical Journal* "respectfully suggests" to these Commissioners to issue a similar "ad" for the services of a chaplain—hymn-book and Bible included—with a "bond and surety, for the faithful performance of the trust and agreement." They are very likely to receive some pretty low bids.

The Henry W. Grady, Atlanta, Ga., General Hospital.

The genial, brave, and philanthropic editor of the *Atlanta Constitution*, "being dead, yet speaketh." As a monument to his greatness and goodness of heart, the authorities of Atlanta have appropriated $30,000 to erect a city hospital to bear his name, and the generous impulses of the citizens have led them to contribute $15,000 more. It does not seem to be doubted that at least $100,000 will be raised to establish this monument to Mr. Grady, which will, at the same time, prove a blessing to the people of Atlanta. This will be one of the very few general city hospitals in the South. Why cannot the push of Richmond merchants secure a like provision for the sick of Richmond who may need it?

"Black Tongue"

Is said to have been recently an epidemic in Monongahalia county, West Virginia. Some suppose it to have been a malignant form of typhus fever.

Journalistic.

The Dixie Doctor is the title of a neatly published monthly, begun with the January number, 1890, in Atlanta, Ga., Dr. T. H. Huzza, Editor, etc. If the contents of subsequent issues equal those of this first number, this new aspirant for professional favor will need no other recommendation.

The Medical Mirror, edited by Dr. I. N. Love, of St. Louis, Mo., is a new monthly, and shows the leadership of an experienced and energetic editor. Its first issue was the January number, 1890. We feel condent that the *Mirror* has come to stay.

The Southern Medical Record, of Atlanta, Ga., has "undergone repairs," and its January number came out with a new dress, and "the latest improvements." Drs. A. W. Griggs, Wm. Perrin Nicolson, and Frank O. Stockton, are editors, with Dr. Dan. H. Howell, as Business Manager.

Practice—Edited by Dr. J. F. Winn, of Richmond, Va., issues an enlarged January number. The energy and ability of the Editor are reflected in the excellence of his journal. The subscriber will get good returns for the annual dollar he has to pay for it.

Deaths from Ether—

Now that this agent is becoming the popular anæsthetic in New York and other sections—are becoming about as numerous, apparently, as deaths from chloroform, used as the surgical anæsthetic. Another death from ether is reported to have occurred in Bellevue Hospital, New York (N. Y.) last November. No criticism is passed upon the manner of administration by the Doctor. But it turns out at the autopsy that the patient—a painter, 28 years of age—would have died anyway, even if chloroform had been used, from fatty degeneration of the heart—so says Dr. Gerster. But in Atlanta, Ga., during the latter part of January, another death resulted in the practice of Dr. Westmoreland, from ether, used as the anæsthetic—and no one doubts Dr. Westmoreland's ability.

Defective Alabama Practice Law.

A quack was recently tried and convicted of breaking the medical act; but during some tampering with the law during the last Legislature the penalty clause was omitted. Hence the conviction was without punishment. This matter should be attended to at once.

Purcell, Ladd & Co.'s Improved Formula for Syrup Hyphosphites Compound

Is given in the advertising department of this issue (page 20) so modestly as scarcely to attract attention, unless special attention were called to it. For about a year this reliable firm has been studying and experimenting to perfect their formula, and all sorts of reasonable modifications and additions have been tested. The result now presented shows that the improved formula of "Syrup Hypophosphites Comp., with Quinine, Strychnine, Manganeze *and Glycerine*," is about as near perfection as it seems possible to reach, either as a pharmeceutical product or a therapeutical remedy. It has been well tested, clinically, by many of the profession of this city.

Biological Prizes—$400.

Dr. C. A. Stephens, of Norway Lake, Me., offers three cash prizes of $175, $125, and $100 for the best three comparative demonstrations, by means of microscopical slides, of the blood capillaries in young and old tissues, canine or human. Twelve slides from young and twelve from aged tissues must be submitted by each competitor, together with a full description of the subjects, methods pursued, and every detail and circumstance which is likely to throw light upon or account for any peculiarity. While the awards will not be made until October 1st, 1890, all slides, manuscripts, etc., must be in hand by August 20th, 1890. For further information, address C. A. Stephen's Laboratory, Norway Lake, Maine.

Assistant Physician Elect of the Eastern (Va.) Lunatic Asylum.

To fill the vacancy occasioned by the resignation of Dr. John Clopton, who has so long and so efficiently filled the place of Assistant Physician at the Eastern Lunatic Asylum at Williamsburg, Va., the Board of Directors elected Dr. Henry M. Shields, of Yorktown, Va., on their eleventh ballot.

Dr. R. E. Moore,

Of Wytheville, Va., has been appointed by the Governor a member of the Board of Visitors of the Medical College of Virginia, to fill the vacancy caused by the death of Dr. S. C. Gleaves.

Bound Volumes of Virginia Medical Monthly For Sale.

Mrs. J. Y. Tallmadge, 38 Capitol Street, Auburn, N. Y., the widow of one of the subscribers of this journal (Dr. Tallmadge, late of Bransford, N. Y.) who died last summer, has five volumes of the *Virginia Medical Monthly*—all newly bound half leather, and not soiled or worn in the least—which she will sell at a moderate price. The volumes are of the years 1879, 1880, 1881, 1882 and 1883-5 inclusive.

Obituary Record.

Dr. Samuel Crockett Gleaves,

Died at his home in Wytheville, Va., January 14th, 1890, after an illness of a month's duration. He was of Scotch-Irish descent, and was born in Wythe county, Va., October 12th, 1823. He graduated in medicine from the University of Pennsylvania, 1848. He located at once in Wytheville, where he has remained ever since, except during the War, when he was Confederate Surgeon of the 45th Virginia Regiment, then Brigade Surgeon, and then Division Medical Director. He was an active worker in the Medical Society of Virginia. In 1874, he was chosen its President, and in 1875 he was elected an Honorary Fellow. He was popular as a practitioner, influential as a citizen, and graceful as a speaker. He was a contributor of reports of some surgical cases to the pages of this journal which were widely sought after.

Dr. E. C. Fisher.

Assistant Physician Western (Va.) Lunatic Asylum, at Staunton, died at his home January 13th, 1890. He was a native of Richmond. He ranked high in the list of alienists of the United States, and his death will be greatly lamented. He was not a writer, but a worker and a student. Off and on, he has been connected as physician with insane asylums for about thirty years.

Have used Tongaline in cases of subacute and chronic articular rheumatism with the most gratifying results. F. Christiansen, M. D., Grand Island, Neb.

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RICHMOND, MARCH, 1890.

Original Communications.

ART. I.—Bubo—A Lecture.

By G. FRANK LYDSTON, M. D., of Chicago, Ill.

LATE LECTURER ON SURGICAL DISEASES OF THE GENITO-URINARY ORGANS AND VENEREAL DISEASES, COLLEGE OF PHYSICIANS AND SURGEONS, CHICAGO, ILL.

Gentlemen,—I have reserved the subject of bubo for separate discussion, for the reason that, although it is the most important complication of chancroid, it is frequently due to other causes of a simple or specific character, and is, therefore, worthy of especial attention.

The term *bubo* (βουβών, groin) is generally applied only to those glandular enlargements which occur in the inguinal or femoral regions, irrespective of cause, and which are usually accepted as an evidence of venereal infection of one kind or another. This popular interpretation of the term is unfortunate, as bubo is often due to causes of a simple and innocent nature, and may involve the lymphatics in any situation. The term *adenitis* is better, and may, with equal propriety, be applied to glandular swellings occurring in the groin, femoral region, axilla, or neck, irrespective of their origin, and signifies glandular inflammation, simple or specific. In genito-urinary practice, we deal chiefly with

the form of adenitis that occurs in the groin, or in other situations, only when due to extra-genital venereal lesions.

The consideration of bubo is of the greatest importance, as bearing upon diseases of a general surgical character; and a careful study of the subject will enable you to understand other forms of adenitis with which you will so often meet in general practice. *There is no practical difference between the suppurative axillary adenitis resulting from a dissection wound or other injury to the hand, and a suppurating bubo; and a knowledge of the causes and proper treatment of the one, is apt to be of service in the management of the other.*

The occurrence of bubo is to me one of the most interesting of surgical phenomena, the more especially as it is, so to speak, *a manifestation of the special physiological function of the lymphatic glands.* The lymphatic system is interposed between the venous and vascular systems, and is designed for the collection and return to the circulation of any superfluous nutritive material which may accumulate in the tissues. The fine lymphatic vessels are seemingly hungry for nutritive substances at all times; but, unfortunately, they do not possess the power of discriminating those substances which are beneficial or innocuous from those which are injurious. Any soluble or finely divided organic material may, therefore, be taken up by the lymphatics, and conveyed to the nearest glands, or even to the general system, by way of the veins, heart, and arteries, with the result of inducing morbid changes in the blood and various solid tissues. This is well illustrated in the pyogenic form of septæmia, or, as it is generally termed, "pyæmia." This peculiar property of the lymphatics is well marked in cachectic or debilitated patients, in whom there is a decided systemic demand for an increase of nutritive material.

As you well know, the average results of dissection wounds in robust and debilitated students are widely different. One may have either no morbid manifestations at all, or such as are mainly local, while the other is quite apt to have a severe, or even fatal, result. This rule will also apply to bubo, there being a marked difference in the susceptibility to

glandular complications of different patients with lesions of a similar nature. The lymphatic glands are fortunately interposed between the general system and the infecting surface in surgical affections, and, in a general way, often protect the human organism from serious, or even fatal, results from the absorption of poisons. By undergoing inflammatory reaction, the glands interpose a barrier of inflammatory exudate to the further progress of the poison, and by the processes of suppuration and ulceration it is finally eliminated; the well-known odor of the dissecting-room, as observed in the pus from axillary abscesses following dissection wounds, is ample proof of this assertion. *In some patients, and with some poisons, this glandular action is either absent or slight, and, as a consequence, systemic disturbance occurs, the degree of reaction being mainly dependent upon the corrosiveness of the poison, and the plasticity of the patient's blood.*

It is probably, therefore, a fortunate circumstance for humanity that the poison of chancroid does induce bubo when it is carried to the glands. What results, if any, would ensue from the introduction of chancroidal secretions into the veins, has never been demonstrated by experiment, but from *a priori* considerations one would naturally expect quite serious trouble from such inoculation.

As seen in practice, bubo occurs in a variety of forms, which may be classified as follows:

1. Simple non-venereal inflammatory bubo, dependent upon simple lesions of the neighboring tissues.

2. Simple venereal inflammatory bubo, but not necessarily of the genitals. Simple bubo may be suppurative or non-suppurative.

3. Virulent bubo, due, under all circumstances, to chancroidal virus, and indicating the action of this special form of irritant upon the lymphatic glands, this form being invariably suppurative, and quite liable to phagedena and gangrene.

4. Primary syphilitic bubo.

5. Recurrent syphilitic bubo, a form that is not generally recognized.

6. Subacute or chronic bubo, dependent upon struma, or cachexia—constitutional.

In general, bubo may be classed as acute, subacute, and chronic; suppurative and non-suppurative.

The two varieties of simple bubo (simple adenitis) may result from any lesion of an inflammatory character, affecting tissues contiguous to the glands involved. A "specific" lesion of the genitals may or may not give rise to "specific" bubo, such an occurrence depending entirely upon the absorption or non-absorption of the special poison of the primary lesion, but it is none the less apt to give rise to simple bubo from the conveyance of simple inflammatory products to the contiguous glands. Simple bubo, therefore, may be due to chancroid, chancre, balanitis, herpes, gonorrhœa, or even stricture. It has been known to occur as a result of genital eczema, eczema of the leg, erysipelas, an inflamed corn, vaccination, etc. In short, any inflammatory affection in those tissues, the lymphatics of which are tributary to the inguinal or femoral glands, is apt to cause bubo, and this fact should be remembered. *I am perfectly satisfied, moreover, that violent strains and over-exertion may, in some patients, induce bubo.* The term *sympathetic bubo* has been quite generally applied to the simple form of the affection, but in the light of our present pathological knowledge, such a form of adenitis is, to say the least, doubtful; and, whenever you meet with a case of bubo, you may be positively certain that either an irritant, simple or "specific," has been carried to the affected gland, or that actual injury to the gland has been produced by trauma. The only possible exception to this rule is *scrofulous bobo*, and even in this form, some injury or source of irritation is usually discoverable.

Simple bubo is quite apt to suppurate, but need not necessarily do so, the affection differing decidedly in this respect from the virulent form of the affection.

The location of bubo, whether simple or specific, depends upon the situation of the primary lesion; thus, in lesions upon the fingers, the axillary, and cubital; in lesions of the genitalia, legs and anus; the femoral, or inguinal; and in

lesions of the face, the pre-aural or submaxillary glands are most likely to be affected. Obviously, the inguinal and femoral glands are most often involved: and as chancroid is the severest of the local inflammations of the genitalia, this lesion is more often than any other responsible for the bubo, it being estimated that over one-third of the cases of chancroid are complicated by adenitis. Simple bubo, on account of the numerous conditions which are apt to give rise to it, is more frequent than the virulent form. The relative frequency of bubo of all forms in men and women affected by chancroid is about two to one in favor of the male, suppuration being also twice as frequent as in women. This is ascribed by Ziessl to the fact that the male sex is active, and the parts are hence more exposed to pressure and local irritation. It may also be ascribed to the fact that chancroids in women are apt to be better protected from local irritation by friction in walking than, and last, but not least, to the frequency of alcoholism in men, as compared with women. Ziessl has shown that chancroids of the mucous membrane are more apt to be complicated by bubo than those occurring upon the skin, as might be expected, from the relatively greater facility of absorption of poisonous secretions by mucous tissue.

The glands attacked by the inflammation are the same as in both simple and specific bubo, there being a decided predilection for the central inguinal lymphatics upon the side corresponding to the local lesion, although cases of crossed bubo are seen, in which the opposite side is affected, or perhaps both sides are attacked simultaneously. In rare instances, simple bubo may occur upon one side and virulent upon the other. The process usually stops at the gland first affected in both simple and virulent bubo, the process being more general in those forms dependent upon such constitutional conditions as syphilis and struma.

The time of the appearance of a bubo does not bear a constant relation to the development and progress of the primary lesion; and I have seen cases of bubo following chancroid, in which the sore had completely healed before

the adenitis developed; such cases are, however, quite exceptional. Chancroid occurring in locations which are richly supplied with lymphatics are most apt to give rise to bubo, this being especially noticeable in those occurring beside the frænum preputii in the male.

The possibility of the occurrence of *idiopathic bubo* has been affirmed by some, but denied by the majority of observers. Personally, I am inclined to believe that simple adenitis in the inguinal and femoral glands is not so rare as has been generally supposed. It is probable that the majority of surgeons have seen cases in which no causal lesion has been discoverable. It is certain that comparatively slight causes may produce adenitis in debilitated strumous or syphilitic subjects, and this is quite as likely to affect the inguinal or femoral glands as those in other situations; indeed, the necessary movements of the parts about the flexure of the thigh especially favor inflammation in this locality.

The older authorities of the French school laid great stress upon a form of alleged spontaneous specific bubo, the *bubon d' emblée*. This was supposed to arise by the absorption of chancroidal or syphilitic poison through the unbroken skin or mucous membrane, and to occur without a preceding sore. This view, involving, as it necessarily must, the conveyance of a morbid poison directly to the lymphatic glands, *via* the *absorbents*, and the excitation of secondary glandular reaction without primary local changes, is now held to be untenable, especially in the case of chancroid.*

In some cases of true syphilis, no manifestations of the disease are observed prior to the appearance of bubo, but even in such instances, an initial lesion has probably existed, but has either been overlooked, or has disappeared prior to examination, the initial sore being in some cases so slight as to readily disappear, or to be imperceptible except

* The *bubon d' emblée* has been advocated by such eminent authorities as Casenave and Diday, but disputed by Ricord and Fournier. The majority of modern syphilographers deny its existence.

under close inspection of the genitals. Cases of this kind, and cases of chancroid, which have healed prior to examination, but have, nevertheless, been followed by bubo, probably constitute the so-called *bubon d' emblée*, for *it is well-nigh certain that local changes of greater or less degree of severity always follow infection by syphilitic or corrosive chancroidal poison.*

In some cases of apparently idiopathic suppurative bubo, the test of auto-inoculation may settle the question of the pre-existence of chancroid. Should auto-inoculation prove successful, it will demonstrate the existence and character of a local lesion which had healed shortly before the appearance of the bubo.

The symptoms of simple inflammatory bubo are quite characteristic. The first manifestation of the disease consists of a feeling of soreness, such as might be produced by a violent strain, as in lifting. On inspection, a small round or oval-shaped indurated lump is found in the groin or femoral region. This is usually quite tender to the touch, and causes considerable pain in walking, although it is freely movable upon the sub-lying tissues. In some instances there is a perceptible degree of febrile movement quite early in the case. In many cases, the disease may be aborted at this stage by proper management, and resolution will occur quite promptly; but in the majority of cases the swelling and pain rapidly increase, the bubo becomes matted to the surrounding tissues, and the skin becomes adherent to its surface at one or more points. After a variable time, a spot of softening develops, and the abscess finally breaks, discharging a more or less creamy and laudable pus for a few weeks, and healing quite promptly under favorable circumstances. In by far the greater number of cases, however, healing is apt to be quite protracted, inasmuch as there are very few patients indeed who do not attempt to attend to their ordinary duties, while, at the same time, endeavoring to obtain a cure for the bubo. This fact is the explanation for the majority of cases of chronic simple bubo. The lack of rest is frequently supplemented by debility, syphilitic or other ca-

chexiæ and intemperance, the last-named factor being second only to a lack of rest in retarding healing. Very often the conditions just enumerated result in the formation of sinuses which defy all ordinary methods of treatment.

The constitutional symptoms in suppurative bubo are those which characterize all cases of simple suppuration, and formation of pus is therefore quite likely to be announced by the occurrence of a chill of greater or less severity.

The course of simple bubo in strumous or cachectic patients is apt to be particularly annoying, constituting the special form which has been styled, in our classification, "subacute or chronic indolent bubo." Instead of an acute inflammation affecting, as a rule, a single gland, a number of glands are likely to be involved, and present the characters of slowly progressing indolent enlargement and chronic suppuration. The glands become matted together in a brawny, indurated mass, sometimes œdematous, and producing, by circulatory obstruction, œdema of the genitals in some instances. After an indefinite time, periglandular connective tissue breaks down into a thin, unhealthy, ichorous pus, after which the abscess, if unopened, will, sooner or later, break spontaneously. The skin about such abscesses is thinned and bluish—its nutrition being profoundly impaired. Burrowing of pus in various directions, with the consequent formation of sinuses, with hard, pseudo-cartilaginous tracks, may result, and give rise to a discharge which sometimes persists for years. When the abscess is first opened in such cases, the glands will be found to be entire and circumscribed, presenting in the floor or sides of the cavity, showing that the inflammation in such cases is chiefly periglandular. I am of the opinion that the majority of such cases are the result of a primary non-suppurative adenitis with enlargement of the glands, and that these glands, acting as foreign bodies, set up periglandular inflammation and suppuration. The glands may subsequently break down into pus, but more often they become hyperplastic, and the seat of fungoid granulations, thus preventing healing. *Sometimes they hypertrophy to such an extent as to completely fill*

the abscess cavity, and form a large projecting fungoid mass, in which case healing never occurs without surgical interference. Suppuration does not always occur in indolent bubo, for the glands may remain indefinitely, as comparatively painless, sluggish swellings.

The pus of simple bubo, whether acute or chronic, is never auto-inoculable, nor is the process apt to be complicated by phagedena; erysipelas and gangrene, however, are possible complications.

Virulent bubo has been termed "the bubo of absorption," from the fact that absorption of the secretion of chancroid is necessary to its production. This term is obviously inaccurate, if we accept the view that simple bubo is often the result of the absorption of the products of simple inflammation. The term chancroidal bubo is not acceptable, for the reason that chancroid may produce simple bubo by the absorption of the products of coincident inflammation independently of the specific character of the *fons origo et mali.* This form of bubo usually affects a single gland upon one side, and is not readily distinguished from the simple acute form until the pus is discharged and auto-inoculation can be practiced. In a general way, it may be said that virulent bubo is a more active process, and suppurates much more quickly, than the simple variety, but these characters are by no means to be relied upon for a diagnosis. There is one peculiar feature of virulent bubo which it is well to bear in mind—viz: its liability to be accompanied by peri-adenitis of a simple suppurative character. In such an event, the first pus discharged from the abscess is unirritating in character, and not auto-inoculable, while that which is evacuated later on from the gland proper is highly corrosive and auto-inoculable. This circumstance explains how some cases of apparently simple suppurative bubo undergo subsequent transformation into the virulent form of the affection.*

* Virchow, in his *Cellular Pathology,* calls attention to the fact that the poison is found in the substance of the gland, and not in the surrounding tissues. Ricord first directed attention to this peculiar feature of virulent bubo.

Soon after a virulent bubo breaks or is incised, the lesion assumes the character of ordinary chanoroid. In favorable cases, the tissues become so matted together about the abscess, that it remains circumscribed, but occasionally the surrounding structures are so loose that extensive and destructive burrowing occurs, and results in the formation of sinuses and pockets which may last for years, or perhaps for life. Phagedæna may attack a virulent bubo, and a preceding phagedænic chancroid is not necessary for its production, simple chancroid being almost as liable to be followed by phagedænic bubo as is the phagedænic variety of local sore. When phagedæna does attack a bubo, it is quite likely to assume the serpiginous form. This extends upward over the abdomen by preference, but when the process reaches the walls of the chest, which appear to be unfavorable soil for its progression, it will usually advance in the other direction, and descend along the thigh.*

Some cases of phagedæna, notably the serpiginous form, will progress with greater or less rapidity, in spite of the very best treatment; and others, after the phagedæna has been checked, and the sore is very nearly healed, will suddenly take on phagedænic action. Simple bubo may do the same thing, in rare instances. I recall one case, occurring in the wards of the New York Charity Hospital, in which the bubo was apparently nearly closed, and was granulating finely, when gangrenous phagedæna set in, and extended over nearly half the abdomen before it could be checked. By free stimulation, and a nourishing diet, with the local application of the carbo-sulphuric paste, the process was finally stopped, but not until the external oblique muscle had been destroyed for quite a space, and even the next layer of muscles attacked. This case was primarily one of virulent bubo, but had not been phagedænic, and at the time the phagedæna set in, was practically a simple bubo in process of granulation.†

* For a graphic illustration of serpiginous phagedænic bubo, see Cullerier's Atlas of Ven. Dis., Plate XV.

† An excellent illustration of a case of this kind after Jullien, may be found in Bumstead and Taylor's work on Venereal Diseas. s.

There is one form of chronic bubo which merits especial attention. This is the variety which accompanies the form of chronic chancroid termed "lupus of the vulva," or in the male, chronic phagedæna. This form of bubo is identical in its general characters with the lesion of the genitals, and presents an elevated, hyperplastic mass of tissue of greater or less extent, with an unhealthy pultaceous or worm-eaten appearance of its surface, which secretes an unhealthy, ichorous fluid. The disease extends very slowly, if at all, after having attained a certain size; the ulceration having meanwhile become continuous, in many cases, with the genital ulcer. There are apt to be several of the buboes, either distinct or connected by ulceration. Such cases are very apt to be of a hæmorrhagic nature when they occur in pregnant females. Cases of this severe form of chronic bubo are, probably, never seen in private practice, but are found only in broken-down hospital cases. They will often defy the best measures of treatment, and finally wear the patient out.

As has been already suggested, in connection with the physiology of the lymphatic capillaries and glands, virulent bubo does not infect the general system. This fact is peculiar, inasmuch as, from *a priori* considerations, we would expect that a process, so intensely infectious locally, and presenting, by its extent, such favorable opportunities for absorption of poisonous materials, would be apt to produce constitutional infection of greater or less degree. *Not only is the contrary the case, but virulent bubo rarely, if ever, leads per se, to septicæmia.* Indeed, I am not familiar with any cases of such septic absorption. In phagedænic bubo, especially, it would seem that there should be danger of secondary infection; such, however, is not the case. On the other hand, in the gangrenous form of the affection, a greater or less degree of septic infection is usual, but this is independent of the specificity of the bubo.

Stimulated by the researches of the eminent Chauveau in his study of the effects of heat in weakening and modifying organic poisons, Aubert experimented with the virus of

chancroid with the view of exploding some of its peculiarities with especial reference to its non-constitutional character.*

The experiments were conducted as follows: "Chancrous virus was taken from different hospital patients under the author's care, and placed in vaccine tubes, some of which were then subjected to various degrees of heat, while the remainder were preserved unchanged.

Inoculations were performed with the heated and the non-heated virus, respectively, and their results compared.

In this way it was found that the virus of chancre becomes powerless when heated to between 37° and 38° (Cent.) —the average temperature of the interior of the human body."

As a deduction from these experiments, Aubert concludes that he has explained the following points in the clinical history of "chancre:"†

1. The seeming impenetrability of the system by the virus of chancre, as evidenced by the non-occurrence of internal ulcers and of pelvic buboes.

The long-established fact that a chancrous infection never spreads to the interior tissues, or beyond the superficial glands, can only be accounted for on the ground of heat. Admitting this, we can scarcely conceive the possibility of a pelvic abscess of venereal origin except in a subject whose central temperature had previously been lowered by exposure to long-continued and intense cold.

But if the infectious matter were able to withstand a heat of 40° or 45°, there would be nothing to prevent it from permeating the entire organism and furnishing the most fearful manifestations of its power.

2. The occurrence of bubo, whether chancrous or inflammatory, solely in the superficial glands.

All the glands—superficial and deep-seated—are alike in structure and function; but the former, owing to their situ-

*P. Aubert, Lyon Medicale, August 12, 1883, and Abstract in Journal of Venereal and Cutaneous Diseases.

† Aubert terms the chancroid "chancre."

ation, preserve a lower temperature, and this is the only conceivable reason why they alone are affected by bubo.

3. The brief duration of chancres on the cervix uteri, and the rapid changes which they undergo, are facts which should be considered from the same point of view; as, also,

4. The limitation of chancre of the anus to the inferior portion of the latter.

5. The relative frequency of merely inflammatory bubo, which occurs almost as often as the chancrous form. It is a familiar fact that the same primary sore will give rise sometimes to a chancrous bubo yielding inoculable pus, and sometimes to a simple, non-infectious swelling.

The author regards all secondary buboes as chancrous in their beginning, but thinks that an attack of fever will operate to convert any such bubo into one that is simply inflammatory.

6. Cure of phagedæna by erysipelas. Erysipelas causes an elevation both of the central and local temperature, which may suffice to destroy the virulence of chancrous pus, and to transform the spreading ulcer into a simple one.

7. Cure of chancres by gangrene. The gangrenous process is uniformly accompanied by intense fever—sometimes passing into typhus—and itself results from a high grade of tissue-inflammation.

8. Difference in the results of inoculation in different regions. This difference is well known to experimenters, especially as connected with chancroid of the face.

Reasoning from the premises above indicated, Aubert believes that heat, in the form of local applications, and the prolonged use of hot sitz baths, is a specific for chancroid and virulent bubo.

The theory which our author has advanced is, to say the least, ingenious, and it is unfortunate that there should be any ambiguity in his statements resulting from a misuse of terms. As is well known, the system is not impenetrable to the virus of true chancre, and the interior tissues and glands are always involved sooner or later. At the time of the oc-

currence of general adenopathy, however, ulceration or necrosis of tissue is exceptional in the natural history of the disease. In the case of the chancroid, the lymphatic glands (as has already been indicated) seem to act as a physiological barrier to the internal progression of the disease. This is also true of syphilis, but in the latter disease the resistance of the glands is overcome in a short time, and the infecting cells gradually invade the deeper structures. In the case of chancroid, the poison so irritates the glands that acute inflammation, with its accompanying exudate, occurs, and blocks the further progression of the poison, in all probability by the pressure of the exudate upon the absorbents, thus temporarily checking their functions. By the time this pressure has been removed, and the exudative material has disappeared by resolution and suppuration, the abscess has been evacuated either by the knife of the surgeon or by spontaneous discharge, and, later on, the virus has exhausted itself, as it invariably does in the natural course of the disease. I think it will be found that an area of inflammatory infiltration, of greater or less extent, surrounds a virulent bubo for some little time after the specificity of the discharge has disappeared or been destroyed.

*It will be found that the virus of chancroid tends to exhaust itself by the inoculation of successive tissues, and it is probable that it thus loses its power of extension along the lymphatics.** The virus, then, in all probability, becomes modified, as far as its ability for lymphatics is concerned, in the glands first affected. It is impossible to say how much influence the temperature of the deeper glands may have in opposing the progress of the virus, but it does not seem possible that the difference in the temperature of the superficial and deep tissues of the body is great enough to determine the non-susceptibility of the latter, as compared with the former. It is highly probable that the conditions to which Aubert subjected his virus in the vaccine tubes were not at all similar to those which prevail when poisons are introduced into the

*Some of the experiments conducted in Böeck's method of syphilization have demonstrated this fact.

animal body. The short duration of chancroids of the cervix uteri is explained by the relative density of the tissues of this region, and the sparsity of connective tissue and lymphatics—conditions which form very unfavorable soil for the development of chancroid, rather than by the high temperature of the part.

That erysipelas and gangrene destroy the poison of chancroid by virtue of the elevated temperature which they produce, is hardly a fair proposition. Whether the tissues are so modified by these diseases that they will no longer give sustenance to chancroid, or the poisonous properties of these diseases are inimical to the life of the organism which it is fair to assume is the essential element of chancroid, would be difficult to determine; but either view of the case is more philosophical than the deductions of Aubert. I have expatiated upon this particular point because it is, in my opinion, one of the most interesting features in the life-history of the virus of chancroidal ulcers and bubo. As far as the local use of heat is concerned, it is, irrespective of the theory of its action, an excellent measure of treatment; and, although it is not, in any sense, specific, it is well worthy of the praise which our over-enthusiastic experimenter has given it.

It is unnecessary for me to dwell, to any extent, upon primary syphilitic bubo at this time, as it is quite rarely troublesome, and is of importance only as a manifestatiou of a constitutional disease, rarely calling for special local measures of treatment. Whenever it assumes local importance, it is as a result of simple inflammation, or of virulent infection from a complicating chancroid, and not from its syphilitic character *per se*. The more typically syphilitic the bubo, the more inocuous it is likely to be. Syphilitic bubo rarely suppurates, and then only as a result of complicating conditions. Its special characters will receive attention in connection with the subject of primary syphilis.

There is another form of syphilitic bubo, however, to which I desire to direct special attention. This I have ventured to term *recurrent syphilitic bubo*.

The assertion is made by most syphilographers, that syphilitic bubo, having once resolved, does not return, although, in exceptional cases, the affected glands may remain enlarged for a considerable time. I had accepted this *ipse dixit* without question until quite recently, having attributed such instances of bubo as have appeared in my cases of late syphilis to other causes than the old constitutional taint. In most of these cases this assumption was doubtless correct, but in quite a number of them, recent observation has convinced me that I was in error. In substantiation of this assertion, the following brief report of cases may be of interest:

Case I.—A young man, of 24 years of age, contracted syphilis in March, 1886. He had a typical chancre followed by a characteristic course of secondary syphilis. Bubo of a non-suppurative but painful character was one of the prominent manifestations of the disease. Under proper measures of treatment, improvement was quite rapid. Unfortunately, however, the patient considered himself cured at the end of about six months, and ceased treatment.

In March of this year he again consulted me for what he supposed to be a return of the disease in the form of a bubo in the right groin. This had come on independently of venereal exposure; and, upon examination of the genitalia I was unable to discover any local cause for the trouble. The appearance and feel of the bubo were precisely identical with the ordinary primary bubo of syphilis, and was painless except on very firm pressure. On examining the mouth, I detected several small *plaques muqueuse*, and a characteristically fissured tongue. There seemed to be a general lowering of systemic tone, and a loss of appetite was complained of. There was no history of injury which could possibly account for the bubo. Under small doses of mercury and potassic iodide, with a liberal diet and tonics, recovery was complete in about six weeks.

Case II.—This case was similar to the above, excepting in the fact that the bubo was attributed by the patient to a strain, and had appeared six months after the disappearance of the primary bubo, and three months after any possible exposure. There were no evidences of an acute inflammatory process, and the patient was in fair systemic condition. The usual course of anti-syphilitic treatment, com-

bined with counter irritation, brought about resolution in about eight weeks.

Case III.—This case was that of a young woman of 18; a cachectic, debilitated subject, who had been affected by syphilis about a year and a half, during a portion of which time she had been treated very thoroughly. The femoral glands were involved originally, and, as was to be expected, if my view of its origin be correct, the recurrent disease affected the same glands. Mucous patches were present in the mouth, but the genitalia were absolutely healthy. No lesions were discoverable in any situation which would account for the bubo. Suppuration occurred in this case, the pus being scanty and thin, and the glands remained indurated for some time after the abscess cavity had healed. As soon as the patient could bear anti-syphilitic treatment, the induration rapidly disappeared.

Case IV.—This patient, a gentleman of 35 years of age, had syphilis two years before the second bubo appeared. At the time of its appearance he was a little out of health, but had experienced nothing which might account for the glandular enlargement, although he stated that he had recently suffered from a "heavy cold." He had not had sexual intercourse for four weeks prior to the appearance of the bubo, and no genital lesions had been detected since the original chancre. Being a physician, he was naturally greatly puzzled at the occurrence of a bubo in the groin without any exciting cause, and contrary to the assertions of surgical authorities. The bubo went on to suppuration, and did not heal after evacuation, until a thorough course of anti-syphilitic treatment was instituted, after which recovery was quite rapid.

These cases, with others I have observed, have convinced me that many cases of bubo, in which the causes are obscure, are due to a recurrence of glandular syphilis. That this is unusual, is explicable by the fact that it only recurs in certain individuals. In strumous persons, for example, there is an inherent tendency to glandular enlargements; and whenever, in the course of syphilis in such patients, there is a sudden renewal of proliferative energy in the syphilitic cells, the glands are affected because of their affording a *locus minoris resistentiæ*. The same process which would in other persons produce a syphiloderm, will in them produce a bubo. The recurrence of glandular enlargement

in the groin, rather than elsewhere, is explicable by the greater irritability of these glands on account of their situation, which exposes them to local irritation and invites cell deposit, and to the fact that the primary adenitis is most marked in these glands, leaving them in a relatively worse condition than the general glandular system. I am satisfied that such circumstances as alcoholism, strain as in lifting, an irritable corn, exposure to cold, or trifling genital irritation, will, in such patients, act as exciting causes of recurrent bubo.

Debility and cachexiæ of various kinds bear the same relation to recurrent syphilitic bubo as struma.

These cases require thorough constitutional treatment, and, above all, should never be incised, unless suppuration be plainly marked; else a chronically indurated and fistulous condition of the part may result, as was the case in a patient whom I recently saw in my clinic, who had been operated upon by some ambitious surgeon, whose desire to cut something evidently perverted his judgment.

The possibility of such cases as those described, constituting some of the cases known in certain quarters as the *bubon d'emblee*, will at once suggest itself to you.

Before leaving the subject of bubo, it might be well to briefly consider some of the points in its differential diagnosis.

Simple inflammatory bubo generally results from an inflamed chancroid, but may be due to gonorrhœa, balanitis, herpes, inflamed hard chancre, or any lesion of the genitalia—specific or simple. It may also result from inflammation of any tissue the absorbents of which empty into the inguinal or femoral glands. Erysipelas of the lower extremities has been known to cause the disease. An inflamed corn is by no means a rare cause of bubo, and the dispensary clinic of last winter presented an excellent case of this kind. In a case of my own, at present under treatment for severe gonorrhœal arthritis of the knee, well-marked simple bubo exists in the groin of the affected side. When simple bubo suppurates, it presents all of the characters of simple

abscess. The pus in these cases is never auto-inoculable, and seldom, if ever, are the tissues attacked by phagedena. Gangrene may occur, but very rarely. Healing is generally prompt under proper measures of treatment.

Virulent bubo is invariably the result of a chancroid or mixed sore, and often becomes phagedenic or gangrenous. Suppuration is an invariable result, the discharge being highly corrosive and infectious, and auto-inoculable, the result of auto-inoculation being a typical chancroid. Soon after evacuation, virulent bubo assumes the physical characteristics of chancroid, its edges being sharply cut and undermined, and its base eroded and sloughy. Healing is slow, and sinuses and fistulæ are a common result. Even before it is opened, virulent bubo presents certain features which, although not pathognomonic, are, to a certain extent, indicative of the character of the lesion; thus the pain and tenderness are marked, the swelling is not well circumscribed, the integument is thinned and bluish, and brawny to the feel, and suppuration is quite rapid, in spite of all measures to abort the inflammation.

Syphilitic bubo follows a hard chancre or a mixed sore, and is often accompanied by general adenopathy by the time the case is presented to the surgeon. If recurrent, it is preceded by a more or less typical course of general syphilis. It is perfectly circumscribed, movable upon the sub-lying tissues, and presents a peculiar hard woody or bone-like feel to the touch. It is slightly, if at all, tender, and is altogether of a passive appearance. Suppuration is rare, and when it does occur, is due to such complicating circumstances as inflammation of the primary sore, mixed infection, cachexia, trauma, or struma, and the pus thus produced is never auto-inoculable, save in the case of the mixed sore, in which the virulent element imparted by the chancroid is responsible for its auto-inoculability.

In conclusion, I desire to impress upon you the necessity for a careful search for a possible source of infection in all cases of bubo before venturing an opinion. You will, in this way, eliminate many supposed cases of idiopathic bubo.

ART. II—**A Study of Puerperal Eclampsia.**

By J. T. GRAHAM, M. D., of Wytheville, Va.

Most members of the Medical Profession need no definition of puerperal eclampsia, for once having been seen the disease is never forgotten. That it is one of the most formidable of all diseases that fall to the lot of the obstetrician to treat, is acknowledged by all authorities. Its exact pathology has never been clearly worked out; yet that it is a subject fraught with great importance to the human family is shown by the fact that one-tenth of all the deaths of pregnant and parturient women is the result of puerperal eclampsia. It is not a matter, then, to be wondered at that so many have attempted to work out the etiology of such a malady, and also to discover successful treatment for it.

Etiology—For many years there has prevailed an opinion in the minds of the profession that there is some close relationship existing between albuminuria and puerperal convulsions. While it is true that in a large majority of cases there is albumen in the urine of eclampsic women, yet there have been a few cases recorded in which no albumen was found at any time previous, during, or after the attack; and in many cases it has not been found, though repeated examinations were made, until after the convulsions have actually begun.

This brings us to a consideration of the first division of our subject, viz:

1.—*Eclampsia associated with Albuminuria.* It has long been known that a large percentage of pregnant women have albumen in their urine, and that the albumen makes its appearance after conception. This per cent. varies from four to twenty, according to the observations of different authors. Fordyce Barker gives the smallest per cent.—one case of albuminuria in twenty-five pregnancies. Now, eclampsia is said to occur about once in 450 pregnancies. If four per cent. or eighteen of these 450 women have albumen in their urine, and only one has an attack of puerperal convulsions, there are left seventeen women with albuminu-

ria who have no convulsions. Then clearly *albuminuria is not the cause* of eclampsia.

We arrive at the same conclusion by a consideration of the second division of our subject.

2.—*Eclampsia not associated with Albuminuria.* In a great many of the cases in which albumen was found in the urine of eclamptic women, it did not appear until after the attack had commenced; and in a few, never appeared at all. In these cases, the albumen theory will not account for the convulsions, because in some it was never present from beginning to end. The convulsions, however, seem to have either produced the albuminuria, or the albuminuria and convulsions are both the effects of a common cause.

The albumen in itself has no morbific influence; but it is known that when albumen—a natural constituent of the blood—is found in the urine, the excrementitious products are retained in the blood, and exert their poisonous influence on the vital economy. Urea has long been considered the chief element of harm in these cases; but as it is shown above, the majority of pregnant women who have albuminuria do not have eclampsia, and some who have eclampsia do not have albuminuria; therefore, the *urea retained in the blood cannot alone account for the trouble.*

To get a better insight into this part of our subject, let us examine into,

3.—*The conditions of the kidneys during pregnancy,* as these conditions must exist in eclampsia also.

At about the fourth month of pregnancy, the gravid uterus rises out of the pelvis, and begins to exert a pressure on all the viscera around it; viz.—the whole urinary apparatus and the intestines. The cervix uteri, which shares in the increase of size of the whole organ, presses on the ureters—stretching and deflecting them out of their natural course. Here, then, is set up a mechanical obstruction to the free flow of urine from the kidneys to the bladder. The urine, being thus retarded in its course, collects in the ureters and kidneys; and by its pressure and decomposition, gives rise to an irritation of the lining membrane of the

ureters and tubules. As a result of the irritation thus produced, the functions of the kidneys are perverted; albumen is found in the scanty urine, and the poisonous elements of metabolism are not eliminated.

This theory of mechanical obstruction, as above described, has been dwelt upon at some length by Dr. Kucher, and others, as a probable cause of puerperal eclampsia.

To follow up the same line of study, we find that, in the latter months of pregnancy, the gravid uterus, besides pressing on the ureters, rests upon the blood vessels leading to and from the kidneys. This pressure interferes with a well balanced circulation through these eliminating organs. Not only this, but the body of the kidney itself is a victim of the enlarged uterus; and a pressure on this organ, together with its interrupted circulation, often brings about a state of inflammation which results in a scanty secretion of urine, a leakage of albumen, and also retention in the blood of the poisonous excrementitious products of tissue disintegration.

This is another phase of the "obstructive theory" as a cause of puerperal eclampsia. While all this is sufficient to account for the scanty urine, the albuminuria, and retention of poisons in the blood, it does not give us a clue to the source of the poison, or poisons, of puerperal eclampsia.

There are four well known sources of all the poisonous elements which should be eliminated by the kidneys. According to Bouchard, these are (1)—aliments, and more especially their potassium compounds: (2)—the absorbed soluble products of intestinal putrefactions: (3)—secretions, such as the bile, saliva, etc.: (4)—tissue disintregrations.

Now, eclampsia cannot be caused by the poisons derived from the *first* source; because it would not necessarily be connected with the pregnant state, if it were the result of poisons thus taken into the system.

It cannot be due to those derived from the *third* source, because, in pregnancy, the secretions, such as the bile, saliva, etc., are not materially changed.

Nor is eclampsia caused by the poisons derived from the

fourth source, or tissue disintegrations, for urea is the chief product of tissue disintegrations; and it has been already proven that urea cannot account for puerperal convulsions.

As there is only one other source of those poisons that are eliminated by the kidneys, here then must originate the poison or poisons that are so potent in producing convulsive seizure in pregnant women; and this source we will now discuss, viz.—*The absorbed soluble products of intestinal putrefactions.*

Every physician knows from personal, as well as professional, experience that constipation produces severe headache, vertigo, and great mental inactivity; that those who suffer with constipation are subject to insomnia, or sleep is unrefreshing. In habitual constipation, there is at times a temporary loss of consciousness; and often the person thus afflicted is hypochondriacal. These symptoms are produced by poisons that result from the putrefactions that are always going on in the intestines; and when there is constipation, the fæces remain in the bowels long enough for the soluble products of these putrefactions to be absorbed. If these products are so poisonous to the system in a case of temporary constipation as to produce a feeling of languor, headache, and a marked inability to use the mental faculties, they must necessarily be a power of evil in the pregnant state, where constipation so often exists for some time. Constipation in pregnancy is due not only to the change in the habits of the pregnant woman, but, to a great extent, is caused by pressure of the gravid uterus on the intestines, especially the upper part of the rectum, and the sigmoid flexure. So, when the fæces are thus retarded in their course to the place of exit from the body, there is time for the absorption of all the soluble products of intestinal putrefactions to take place. These products enter the circulation and cannot be eliminated by the kidneys, as in temporary constipation, because, as already described, the gravid uterus often brings about an inflamed state of these organs by its pressure on them.

Here, then, we have *the source of active poisons to the system,*

intestinal putrefactions, and an additional avenue of exit locked up in the inflamed kidney. With this state of things in the pregnant woman, we are not surprised at the terrible results of a disordered secretion of the kidneys.

The following table contains a few cases collected from the pages of *The American Journal of Obstetrics*. After a consideration of this table, let us discuss the treatment of eclampsia according to the above theory of its etiology.

Statistical Table of Cases, Treatment and Results of Puerperal Eclampsia, Compiled from American Journal of Obstetrics.

PHYSICIAN.	No. Reported.	Primipare.	Multipare.	All uninia.	No albumen.	No albumen till convuls'n.	Convulsions before labor.	Convulsions during labor.	Convulsions after labor.	Deaths.	Recoveries.	TREATMENT.
Kucher, J.	52	43	9	51	1	1	5	28	19	7	46	Sedative—chloral and morphine; eliminative—diuretics and purgatives if patient could swallow
Ferguson	2	2	....	....	....	....	....	2	....	1	1	1 chloral, chloroform and morphine—fatal.
												1 hot pack and morphine—recovered.
Langlet	1	....	1	....	....	....	1	....	....	....	1	Jaborandi given for 16 days in large doses.
Baer	2	2	....	1	1	....	....	1	1	....	2	Venesection, chloroform, morphine and diuretics.
Dawson	2	2	....	2	....	....	....	1	1	2	....	Diaphoretics and diuretics; morphine in 1 case.
Murphy	2	1	1	2	....	....	2	....	....	....	2	Sedatives failed. Pilocarpine succeeded.
Tarkington	3	2	1	3	....	....	3	....	....	1	2	1 chloroform—fatal.
												1 diaphoretics—recovered.
												1 veratrum viride—recovered.
Graham	2	2	....	....	....	....	1	1	....	2	....	1 venesection, chloroform and morphine.
												1 morphine and chloroform.
Total	66	52	13	60	2	3	12	33	21	13	53	

This Table shows that out of the sixty-six cases collected, there were five women who had puerperal eclampsia without having albuminuria before the attack, and two of these five women had no albumen in their urine at any time before, during, or after the convulsions. In these cases the trouble was certainly not due to albuminuria.

Fifty-two of the sixty-six cases were primiparæ. This fact shows the greater frequency of the disease in first pregnancies. In thirty-three, the convulsions came on after labor.; in twelve, before labor; in twenty-one, after labor. In eight cases chloroform and other sedatives failed to control the convulsions; and in three or four, the convulsions continued while the patients were thoroughly anæsthetized. Two such cases came under the writer's observation.

In one of the two last cases reported in the table, no physician was called in until after the patient had had nine convulsions, and had been in a deep coma for more than six hours. The midwife who attended her told the family that the convulsions were very "hard pains." Choloroform was administered, but failed to control the spasmodic seizures; bleeding was then resorted to with slight abatement in the number of convulsions, but they did not cease until two doses of the sulphate of morphine were given hypodermically; she died twenty-six hours after I first saw her. She was a primapara, unmarried, and had attempted to produce abortion several times during her pregnancy.

In the second case of the two last in the table, chloroform was given while the child was forcibly delivered. The os uteri was not dilated, and there were no pains of any consequence. The operation lasted one hour and a half, during which time the patient had three convulsions.

The Table shows a larger percentage of recoveries than is generally given in our text books, there being only thirty-three deaths in the sixty-six cases collected. Dr. Kucher reports fifty-two cases, with a mortality of seven. His treatment was mainly choral hydrate and sulphate of morphine as sedatives, while he attempted to eliminate the poison by diuretics and hydragogue cathartics whenever his patient was able to swallow.

The *treatment of puerperal eclampsia* may, for convenience, be divided into 1, Sedative, and 2, Eliminative.

In the *first* division, may be classed chloral hydrate by itself, and also combined with bromide of potash, sulphate of morphine, chloroform, and veratrum viride.

Chloral hydrate is usually given in combination with bromide of potash, by enema. From thirty to forty grains of chloral, with twice that amount of bromide, can be administered at a single dose, and half as much every two or three hours. This is one of the best methods of counteracting the poison by sedatives: yet many physicians rely more on the *sulphate of morphine* given in large and repeated doses hypodermically. *Chloroform* is another drug that has been used extensively in the treatment of puerperal eclampsia, but in many hands it has failed either to arrest the spasms or prevent their occurrence.

Of late years *veratrum viride* has gained quite a reputation in controlling the convulsions of eclamptic women. A writer in the *Medical Record* of September 7th, 1889, reports twenty-three cases treated with veratrum viride, with twenty-three recoveries—three drops of Norwood's tincture given hypodermically, and repeated in one hour; then two drops every hour, or two until the patient has a cord-like feeling in the neck.

How it acts has never been satisfactorily explained. It does not eliminate anything, but like the soup stone, if enough seasoning is used, you can make soup from it.

The *eliminative treatment* may be subdivided into (1,) diuretics; (2,) diaphoretics; (3,) hydragogue cathartics, and (4), venesection.

Diuretics are always indicated, and with cathartics are the best remedies for preventing eclampsia. Even after the attack has come on they are beneficial, if the patient can be made to swallow them. The drugs generally used for their diuretic effect are digitalis, acetate of potash, spirit of nitrous ether, and more recently, *jaborandi* in large doses. This last drug, however, has a double action—that of a diuretic, and at the same time, that of a diaphoretic—especially the

latter. If its alkaloid, *pilocarpine*, is given, it eliminates the poison by stimulating the sweat glands to greater action, but it is sometimes uncertain in its effect. One great objection to the drug is the danger of drowning a comatose patient in her own fluids, as it causes the secretion of a large amount of saliva, and also the bronchial fluids.

Other methods of producing *diaphoresis* are hot baths, and the hot pack. This method has acted well with morphine, the latter controlling the convulsions, and the hot pack eliminating the poison from the system by its diaphoretic effect.

As already mentioned, if the patient can be made to swallow, *hydragogue cathartics* are among the most powerful remedies in eliminating poison from the system, and especially, when the kidneys do not act, cathartics are beneficial, not only in driving the poison out of the intestines, and preventing further putrefaction, but also in taking the poison out of the blood, thus acting vicariously for the kidneys. These cathartics are indicated both as prophylactic and curative remedies, if the theory of intestinal putrefaction, with urinary obstruction, as a cause of puerperal eclampsia be correct.

No matter what the cause of eclampsia is, *venesection* is one of the most effective, as well as one of the oldest methods of treating it. It has been abandoned to some extent by many authorities, but without good reason. They say that the woman needs all the blood she has, and that bleeding only weakens her and lessens her chances for recovery. They seem to forget that although the woman needs blood, she does not need poisoned blood, and such is the condition of the blood of an eclamptic woman. A bank would not be considered in a prosperous condition if a great part of its capital was counterfeit.

Bleeding is the quickest and one of the surest methods of getting rid of some of the poisoned blood, and while it is true that the amount of blood soon becomes the same, it is also true that the poison is more diluted, and therefore, less potent. There are some patients whose constitution con-

tra-indicate the bleeding, but whenever it can be used in connection with the other remedies, it is one of the surest methods of controlling the convulsions and eliminating the poison of puerperal eclampsia.

Art. III.—Diagnosis of Pregnancy by the Changes of the Urinary Phosphates.

By S. W. BUDD, M. D., of Petersburg, Va,

MEMBER OF MEDICAL EXAMINING BOARD OF VIRGINIA, ETC.

In the *Virginia Medical Monthly* for March, 1887, there appeared an article by Dr. William B. Gray, of Richmond, Va., on "The Diagnostic Value of the Phosphates in Pregnancy." It is to be regretted that the article did not meet with a wider circulation than it appears to have done. No allusion to it was seen in the exchange journals, and no book on the examination of urine makes mention of it. This silence must surely be from lack of investigation. As a *physiological fact*, it demands recognition; as a *practical fact*, it deserves the careful consideration of every general practitioner. To call the attention of the profession to this discovery, and emphasize again the diagnostic value of the well-observed and clearly-defined changes of the phosphates of pregnant women, as seen under the microscope, and ask from each an investigation of its claims, prompts the writing of this article.

In all hyper-taxations of the cerebro-spinal system the eliminations of the phosphate is increased. That this is true in pregnancy, Dr. Gray has demonstrated by a careful analysis of the urine. In his original article referred to, he gave the result of the examination of fifty-four specimens of urine obtained from twenty-four patients. "Of these, the smallest amount of phosphates found was $\frac{1}{3}$rd grain to the drachm; the largest amount, $2\frac{1}{3}$ grain to the drachm, though the increased excretion did not seem to be regularly progressive with the advance of gestation." The method

used for precipitating the phosphates was by adding to the urine in a test tube about one-third its bulk of the magnesium fluid, given by Dr. Tyson in his book, composed of one part each of sulphate of magnesia, chloride of ammonium and aqua ammonia, and eight parts of water.

What most concerns the busy practitioner, however, is the *microscopic appearance of these crystals*, for by it can be made the diagnosis of pregnancy weeks in advance of other signs of that condition. One should be thoroughly familiar with the details of the normal crystals before attempting to recognize any departure therefrom.

The *normal triple phosphate* is precipitated in those beautiful feathery crystals, sometimes a single leaflet, or in stellate forms; but however seen, each feather is perfect. If only a fragment is observed, the feathery appearance is preserved to its extreme tip, equally clear on each side of the central stem.

As soon as conception occurs, the appearance of the triple phosphate changes. It begins to loose its feathery appearance, and disintegrates. The change commences at its tip, and progresses toward its base; or only one side of the leaflet may be affected, leaving the other intact. As the disintegration progresses, only the bare stem may be left, with perhaps a few scraggy points jutting from its sides, and even these stems broken into bits with scarcely any mark to identify them as triple phosphates. These changes commence in the phosphates within twenty days after conception, and continue for several months. After the middle of the seventh month, Dr. Gray observes that these changes become less pronounced, and gradually approach a more normal type, up to the end of gestation.

Another important and useful fact, he records, is that, should the death of the fœtus occur during gestation, the phosphates at once become normal.

The discovery of so simple and certain a method of diagnosing this condition deserves a better fate than to fall still born on the professional ear. The evidence of the facts as recorded is unmistakable; and the diagnosis of pregnancy

can be made without exciting the suspicion of the patient as to the object of the physician.

Among the first specimens of urine examined by the writer was one brought by a physician as a test. The changed appearance of the phosphates was characteristic and the diagnosis of pregnancy made. The physician then related that the urine was from a woman over forty years old, the keeper of a "bawdy-house;" that she had been a prostitute for twenty-five years, and had never been pregnant. On learning that her period was overdue some ten days, he asked her for the specimen of urine, which showed the pregnant phosphates. The diagnosis of her pregnancy was received by the laughter and ridicule of the patient and her companions. The Doctor, however, fixed the date of her confinement and left. His prediction was fulfilled within twenty-four hours of the time set for the labor.

After an experience of nearly three years examining many specimens for other physicians, "the diagnostic value of the phosphates in pregnancy" is confidently relied upon; and the profession owes Dr. Gray a debt of recognition for his discovery and painstaking investigation of this subject.

Clinical Reports.

A Case of Physometra.

By W. L. GAHAGAN, M. D., of Chattanooga, Tenn.

Mrs. M. blonde, æt. 18, married twelve months, has been under my treatment for the last eighteen months. Previous to her marriage, I was treating her palliatively for an ovarian trouble—pain, tenderness and constant burning in the right iliac region—preparatory to doing the operation of ovariotomy, which was deemed advisable, owing to the recurring and troublesome reflexes which the ovarian lesion excited. In consideration of the dangers of so serious an operation, and the near approach of her marriage, I was admonished by her affianced to postpone the operation for a short while at least, and indefinitely if possible. This I

readily consented to, with a resolve to watch developments. Her marriage took place at the appointed time, and the changes in her life incident thereto seemed to produce an abatement of her neuroses.

In about six weeks, however, I was called to see her for persistent nausea and vomiting. Her menses, which previously had been quite regular as to time and quantity, had failed to appear. This fact, in connection with her other symptoms, caused me to suspect pregnancy.

My next visit, six weeks afterwards, was for the purpose of relieving her of a "nervous chill." I found her much prostrated and bathed in a cold, clammy sweat; the muscular system was in a state of rapid but not violent tonic spasms, sufficient, however, to shake the bed upon which she was resting. A slight discharge of menstrual blood had taken place the day before. I made a digital vaginal examination, and found everything in an apparently physiological condition, but palpation revealed an enlarged firm uterus. The symptoms just noted presented themselves at the two next menstrual epochs.

About the fifth month, however, a change took place. The menstrual blood, which had never since the beginning of its appearance at the twelfth week, exceeded an ounce or two, failed to appear entirely. Her nervous chills continued to recur periodically. The uterus maintained its firmness and progressed in its enlargement. At this time the lady informed me she could feel movements of the child distinctly.

The case now presented every feature of pregnancy, even to enlargement of the breast. A slight diarrhœa had set in which was promptly relieved with astringents.

No symptoms worthy of note presented themselves during my monthly visits except the periodic cold, nervous spells, for the relief of which I was regularly called; in addition, a visit was made every two weeks for the last month or so, simply to look after the safety and welfare of my patient.

When seven months had elapsed I was hurriedly called one afternoon to see her. A "chill" as usual, and she had a countenance expressive of bitter disappointment. She accosted me with this question, "Doctor, why did you fool me?" I assured her she had not knowingly been deceived, and asked in what way a disappointment had come. "Why, said she, I am not going to have a baby; examine me and see." An examination was made. I introduced a medium

sized Sims' speculum easily, as I had always done, but the vagina and os uteri externus furnished no evidence of the passage of a child. Nothing was discovered by palpation save lax abdominal walls and a slightly larger and softer uterus than normal. She informed me that no blood had escaped, *and no air that she knew of. The change had occurred a night or two previously, unknown to her until she awoke the next morning.* Her menses re-appeared at the proper time, but each flow was accompanied by a nervous spell. I began the administration of Sharp & Dohme's elixir of helonias compound, and the benefit derived from this most excellent preparation has been so great that I have not paid her a visit for about three months. Her husband reports her as being in better health than for years.

This case presents some very interesting facts. The hymen was ruptured, as evidenced by the visible caruncule myrtiformes. There was no atresia either of the ostium vaginæ or of the vagina itself. The external os uteri was not occluded. For obvious reasons I did not introduce a sound into the cavity of the uterus. It is reasonable, however, to suppose it was not stenosed, for the menstrual blood escaped through it before and after marriage. There were no evidences either of hydrometra or hæmatometra. The patient has never been hysterical.

From all available literature this fact is gained: "It is a rare occurrence for the secretion to decompose with the formation of gas, and give rise to physometra, which betrays itself by the escape of flatus from the vagina." (*Ziemssen's Cyclopedia*, Volume X: "Atresia Vaginæ," page 53.)

The preparations of "Hypophosphites," "Coca," "Pepsin," etc., made by Messrs. R. A. Robinson & Co. are endorsed by many prominent physicians. We recommend a careful perusal of the advertisement of this well-known manufacturing house. (See page 28.)

In Pneumonia and Fevers I have found that there is nothing better than Tongaline to equaiize the circulation and produce free diaphoresis. Lucian V. Weathers, M. D., San Antonio, Texas.

Original Translations

From the German. By MOSES D. HOGE, JR., M. D., Richmond, Va.

Treatment of Diphtheria.

The customary solutions of corrosive sublimate and carbolic acid, used as local applications to diphtheritic surfaces, have the disadvantage of coagulating albumen, and thereby forming, in many cases, a thick covering, under which the disease flourishes with new strength. Runert (*Rundschau*, January, 1890) has used, in sixty-two cases, the acid sublimate solution—tartaric acid, five parts; corrosive sublimate, one part; water, one thousand parts, as suggested by Laplace. A small mop of absorbent cotton is saturated with the solution, and the throat is wiped out from below, upwards. Generally, he succeeds with three or four applications. The fever quickly leaves the patient, after which the solution need not be applied oftener than twice a day.

Amylene Hydrate in Epilepsy.

Dr. Wildermuth has used this remedy in sixty-six cases of epilepsy with very good results. In some cases the disease was cut short. The usual dose was one-half to two drachms three times daily. It is best administered in a watery solution. One case of especial interest was that of a patient who for years had been treated with the bromides, zinc, atropin, and belladonna, without any material benefit, but who began to improve at once on the amylene hydrate treatment. It seems of great benefit in those cases in which the attacks come on in rapid succession for a few days, and then follows an interval of cessation. The remedy can be administered in half-drachm doses subcutaneously during the *état du mal*.

But amylene hydrate has some disadvantages. After a long-continued use, the following disturbing symptoms have been observed: Long-continued sleep, even after small repeated doses; frequently causes disturbances of the digestive functions and constipation.—(*Neurolog. Centralblt.*, 1889, 15.)

An exchange refers to a young physician in a neighboring town as a dude. It is inferred that when he lances a boil is not the only time he "cuts a swell."—*Exchange.*

Proceedings of Societies, Boards, etc

RICHMOND ACADEMY OF MEDICINE AND SURGERY.

After several preliminary meetings of the Richmond Academy of Medicine and of the Richmond Medical and Surgical Society, looking to the dissolution of each, and a union of the membership of both organizations into one regular Medical Society of Richmond, a convention of the members of both Societies was held in the Rooms of the Young Men's Christian Association, Friday night, February 21st, 1890, and organized the *Richmond Academy of Medicine and Surgery.* About sixty of the profession of Richmond city are enrolled as Charter members. Its meetings are to be held on the nights of the second and fourth Tuesdays of each month.

The Academy of Medicine and Surgery was organized by the election of the following officers for the term ending December 31st, 1890. Dr. Wm. W. Parker, *President;* Drs. Hugh M. Taylor, Wm. S. Gordon, and Geo. Ben. Johnston, *Vice Presidents;* Drs. Edward McCarthy, *Secretary,* and C. L. Cudlipp, *Assistant Secretary;* Dr. M. D. Hoge, Jr., *Treasurer;* Dr. Wm. F. Mercer, *Librarian.* A *Judiciary Committee* to whom all matters of ethics are to be referred, was elected as follows: Drs. Christopher Tompkins, Jacob Michaux, J. S. D. Cullen, Chas. M. Shields, J. N. Upshur, and Wm. B. Gray.

Mr. Hugh Blair was elected a benefactory member.

A committee was appointed to select a place for meetings, and empowered to inquire as to a site and costs of a building, etc.

Influenza, as it Affected Richmond, was selected as the subject for discussion on next Tuesday night, February 25th, and Dr. Landon B. Edwards was elected as Leader. After some announcements the Academy adjourned.

TUESDAY, FEB. 25.—Meeting called to order by the President, Dr. Parker, in the Room of the Y. M. C. Association. After routine business, the subject for discussion was taken up.

Influenza Epidemic of 1890 as it Occurred in Richmond.

Dr. Landon B. Edwards stated that an epidemic disease began in Richmond about January 5th, 1890, and is now about ending, the like of which has never before been wit-

nessed here as an epidemic by the "oldest inhabitant," although the books are filled with records of epidemics of influenza in this country up to a very few years ago. As best can be calculated on the basis of the general reports from some 50 of the 100 physicians of Richmond, about 40,000 of the 100,000 citizens of the city have been affected. Of these 40,000 cases, about 65 per cent. were *white males* over fourteen years of age; about 8 per cent. were white females over fourteen years of age; about 10 per cent. were white boys between five and fourteen years old; about 3 per cent. were white girls between the same ages, and about 1 per cent. were white children under four years old. Of the remaining 13 per cent., something like 9 or 10 per cent. were colored adult males, and the balance of 3 or 4 per cent. were colored women and children.

Thus about 87 per cent. (or about 35,000) of the cases, were among the *whites*, and 13 per cent. (or about 5,000) were among the colored population. There were relatively more cases among the mulattoes than the negroes. How far these estimates will apply to other sections of the South, is not known. But it is worth while to be reminded in this connection that the swarthy Turk is about the only one of the European nationalities that has escaped the widespread influences of the present epidemic.

The cause of the epidemic, so far as this city is concerned, must remain a matter of conjecture only. The theory of contagion from person to person in no manner satisfies the equation of facts. Drs. Maximilian and Adolph Jolles, of Vienna, are examining "capsule cocci" in search of the etiological factor; but Dr. Germain Sée, of Paris, affirms that "there is no such thing as an influenza microbe." He asserts, however, that "la grippe has a singular and unexplained property of preparing the way for a splendid crop of pneumonia microbes;" and this doctrine seems to have some facts to support it. It is unwise to burden our minds with a theory which is wanting fact to sustain it. The peculiar prevailing atmospheric states of the past few months may furnish something to suggest a cause.

But whatever the cause, the effect is manifested in a disordered condition primarily of the nervous force. Chill, followed by fever of about 101° to 103° F., headache of various kinds, most generally an apparently "bilious tongue," and yet not usually attended by vomiting or sick stomach, and intense "break-bone fever" pains, in all the muscles and joints, etc., were the most common symptoms in uncom-

plicated cases. However, of the many replies made by the doctors in the city as to what sign, or symptom, or combination of symptoms should be regarded as essential to the diagnosis of influenza, scarcely any two agreed. This contrariety of opinion can be the better understood by the statement made by two or three good practitioners, who thought only about 8 or 10 per cent. of their white patients had la grippe, while other just as competent practitioners estimated that from 80 to 85 per cent. of their patrons had the disease. Such extremes evidence that the minority were regarding a something as essential to a diagnosis that the majority of doctors did not think necessary. In some cases, though this was rare, there was a comparatively clean, moist tongue, but in these cases the neuralgic form of the disease was manifested. A characteristic of the disease was that it developed in the victim symptoms which strongly pointed to the physical pre-disposition of the individual, unless perhaps those predisposed to diarrhœas and dysenteries were not made materially worse in these respects. But if the individual was ordinarily neuralgic, neuralgia was the predominant condition; if he were rheumatic, strongly marked disposition to rheumatic attacks would occur; and especially, if there was a predisposition to lung troubles or renal suppression, etc., these pre-existing morbid conditions were aggravated. Dr. Edwards had written editorially (*Virginia Medical Monthly*, January and February, 1890) about the various forms of the epidemic, and to these editorials he refers for fuller description. The dengue fever form, the rheumatoid and neuralgic forms were the most common in this city; but of the 67 cases in his practice of which he took notes, he met with three cases of an erythematous eruption form.

The duration of the disease after it came under treatment was about four or five days, yet rarely keeping his patients from their stores or offices longer than a couple of days. An average of less than two visits to each patient was all that was required. His treatment was almost invariably to give a large initial dose of calomel (gr. x to xx for an adult, according to the history of constipation, the bilious appearance of the tongue, etc.,) combined with soda bicarbonate, podophyllin, and extract of hyoscyamus. About three or four hours after taking this dose, his next most usual prescription was a capsule every three or four hours for a day or so, of three grains of antifebrin and one grain of quinia sulphate, and continuing this capsule for

two or three days afterwards at longer intervals. Tincture of digitalis or of strophantus was very generally prescribed as a cardiac stimulant or tonic for a week or so—especially when the patient insisted on returning to his business within 36 or 48 hours after treatment was begun. Antifebrin was prescribed because it was fully the equal of antipyrin or phenacetin—if not better—and there was never a lack of supply in the city. Nothing more was required for the bilious tongue form or for the neuralgic form. But for the rheumatoid form, salicylate of soda was required. In the erythematous form, dusting the surface with a powder of, or applying a vaseline ointment made of equal parts of bismuth subnitrate, antipyrin, (by measure—not weight), in conjunction with internal treatment, was sufficient to allay the intense itching. As a general tonic after the acute attack, nothing acted better in removing the sense of muscular weakness, etc., than Robinson's Coca Wine or Liebig's Coca Beef Tonic.

The speaker remarked upon a peculiar experience of having apparently phthisical symptoms developing during the past six or seven weeks, in a number of his patients who had not had an acute attack of *la grippe*. Slight bronchitis was a common sequel, which passed away under the coca wine treatment, and in some cases a few doses of a carbonate of ammonia solution. The two cases of worst sequellæ were two gentlemen who had suppression of urine with premonitory symptoms of acute uræmia. The conjoint use of pilocarpine, and six or eight drop doses of tincture of strophanthus or more of digitalis, and half-drachm doses of bitartrate of potash, with tincture of squills, removed apprehension in a day or two. Buffalo Lithia Water is given as the continuous water drink in all such cases. The diet is made chiefly of skimmed milk.

Dr William B. Gray stated that in the cases he had seen he had noted the following as about the characteristic *symptoms* of the disease: Chilly sensations running down the dorsal spines, followed by pain over the nose and frontal sinus for two or three inches, with pain in one or both ears, succeeded by occipital and nuchal pains spreading to the muscles generally, and creating universal soreness of the same, including the masseters. Usually there was more or less soreness of the throat, but not amounting to much in any case. Cough followed these symptoms, with decided tendency to bronchitis or pneumonia. As a sequel, he has seen one very bad case of double pneumonia, accompanied

by delirium for several days, and other symptoms of grave character. The patient narrowly escaped with his life, but made a good and perfect recovery.

As to *treatment:* In cases where the tongue was furred, he gave a mild mercurial cathartic of calomel or blue mass; where this furred tongue was not the case, and yet the bowels were constipated, he has used any simple evacuant, such as castor oil or citrate of magnesia. To relieve the head-symptoms, his custom has been to order warm mustard pediluvia, followed by five grains phenacetine at bed-time, to be repeated in the morning, if not relieved, and the night following. When the more active symptoms had abated or disappeared, he has been well pleased with the effects of salicylate or sulphate of cinchonidia, in three-grain doses, three or four times a day. While the epidemic is unquestionably almost gone, he is not satisfied that we are yet done with it.

Dr. J. N. Upshur said, that he had seen la grippe in three varieties, 1st, the catarrhal form, with sneezing, sore throat, mucous membrane pale, but degtilution painful from muscular soreness in the muscles entering into the palatine arch. 2nd, where the stress of the attack fell on the muscular system, and the patient suffered with intense pain in the muscles of the chest, sometimes involving the limbs and the sterno-cleido-mastoid muscles; and 3d, where the digestive organs bore the brunt, and the patient had distressing nausea, and sometimes vomiting. All varieties suffered more or less with headache. He agreed with Dr. Edwards that the weakest part of the patient was apt to suffer, and cited several cases in illustration. He reported the cases of two sisters, one of whom, aged 40 years, very stout, and usually healthy, came to his office on Monday, February 10th, and seemed not much indisposed. She had a heavily coated tongue, and slight muscular chest pains He was called to see her at 4 A. M. next morning, and found that she had been seized the night before with severe pain in the sternum extending to the right side, and these pains moved about; she had a hard, dry cough. The *respiratory sounds* in all respects were normal. Active anodyne treatment only paliated her suffering. At 12 M., Tuesday, the character of her cough had changed, and she raised the first show of rusty expectoration: the pain was located in her right side. He put her on active pneumonic treatment. Auscultation showed active pleurisy and intense congestion of the *lower lobe* of the right lung. By 7 P. M., congestion had extended to

the whole of both lungs. Respiration was 40; pulse 120 and feeble, and had been so early in morning; she had prune juice expectoration. She died 9 o'clock A. M. Wednesday.

Her sister, aged 59, nursed her all night Monday night, and through the day on Tuesday, and then complained that she had taken cold. Dr. Upshur found her at 7 P. M. with violent pain in her left side, but with negative evidence on auscultation. He administered a hypodermic of morphine, which afforded prompt relief. He gave grs. x each of quinine and Dover's powder at bed time. He found her at 1 A. M. Wednesday, with both lungs profoundly congested. She had a harrassing cough, but never any expectoration, and she died at 5 P. M.

Dr. Upshur thought that the two or three days of cold weather had a marked effect in lessening the amount of la grippe prevalent

Dr. William S. Gordon considered the cause of the disease unknown, but thought that the nervous system was primarily involved, even when marked symptoms of cerebral or spinal disorder were wanting. In other epidemics—such as cholera and the plague—one organ, or certain regions of the body, were invariably affected; but in influenza, no matter how many symptoms arose, the *weakest* portion of the body was almost sure to suffer. This could be explained only on the assumption that the nervous system, which presides over every organ, was the first to be weakened in its functions, the result being that organs, comparatively weak beforehand, manifested disease when rendered *additionally* so from want of nerve control. Hence the various so-called types of la grippe, and the *number* of symptoms reported. In nearly every instance debility was marked, and remained for some time, while here and there relapses occurred. So far as treatment was concerned, the large preponderance of remedies used, with good effect, for the nervous system, would help to establish a belief in the nervous origin of influenza; while the degree of success attending different methods of treatment was due to the fact that the most *prominent features* in each case received attention. He had usually given with benefit moderate doses of mercurials at the onset, and afterwards used such remedies as the symptoms indicated. In most of his cases nervous disorder was noted in a greater or less degree, while gastro-intestinal disturbance was frequently observed. One death, in an aged patient, resulted from pulmonary complication; one case of pneumonitis of

the right lung had a prolonged convalescence; and a case of pre-existing phthisis was rendered rapidly worse. He agreed with Drs. Edwards and Upshur that small doses of antipyrin (the only antipyretic he had used) would frequently do as much good as could be expected from large doses, while the action of the drug could be better watched.

Dr. Thos. J. Moore entered into an interesting description of the literature of the disease. He stated that the recent epidemic, which had prevailed in Europe and America was nothing more than has heretofore been described as influenza or epidemic catarrh. In reviewing the literature of the disease, he stated that it had been recognized and described four hundred years ago—the text-books becoming fuller and more accurate as the epidemic became better understood. During the past sixty years, all of its leading characteristics became fully known, and the description of symptoms embraced all of those that existed during the recent epidemic.

Dr. Loomis (*Practical Medicine*, 1884,) portrayed, in the most full and accurate manner, influenza as it was then understood; his description was all that can be said about its etiology at the present time. The name, "la grippe," is not new. It was so called in France in 1830 and 1831, during an epidemic which prevailed all over Europe, reaching America the following year.

The disease is said to have prevailed generally in America in 1790: again in 1832 and 1847, and several minor epidemics have been noted.

There is no name that will embrace all of its leading symptoms and characteristics. The terms influenza, epidemic bronchitis, epidemic catarrh, have been applied to it by various modern writers.

The spinal morbific cause is still wrapped in obscurity. The profession, at the present time, are disposed to accredit some special germ (which has not yet been discovered) with giving rise to it. The spread of the disease is generally rapid; a few weeks, three or four, usually carries it to all parts of a continent. The disease generally comes in the East and spreads Westward. Russia was found to be its natal place in 1830; China, in 1836, which epidemic spread over Asia and Europe, but did not reach America.

The nervous symptoms which were conspicuous in the epidemic through which we have just passed, have been equally as much so in some of its previous visitations. The complications and sequelæ noted during this winter have

been the same as those formerly described. Dr. Moore used mercury in the commencement of an attack, with quinine in sedative doses, and by these he thought the symptoms were greatly modified. He also used diaphoretics. Spiritus mindererus, combined with spirits nitre, acted well, but of course he remembered the precautions so often stated as to the use of these agents with antipyrin, etc. To relieve pain he gave antifebrine and phenacetine—the former in from 2½ to 5 gr. doses—the latter in 5 gr. doses, repeated hourly, until three doses were given, if necessary. Generally, the first or second dose gave relief. All of his patients recovered.

The President, *Dr. William W. Parker*, (Dr. Taylor in the chair) regards la grippe as a true cerebro-spinal neuralgia. The disease in its typical form is "sudden" He saw about 200 cases in January and February, and is clear in his opinion that the blow falls first on the head and then on the spinal cord. The special senses are usually affected in the bad cases, or at least some of them. He saw six cases of marked ear trouble, some cases going into suppuration of middle ear. Often the assault is at midnight, while the patient is resting in bed, without the least warning. The pain shoots through the temples, and top, and often in back of head and nape of neck. The neuralgia then extends down the spine and follows often the intercostal nerves. He has seen fully thirty-five cases where the intercostal nerves were involved, and where the pain was severe and obstinate. These sudden and typical cases in healthy subjects were of brief duration. Under treatment, they lasted often not more than twelve to fifteen hours, rarely longer than forty-eight hours. In these cases the appetite is not impaired, and the functions of all the organs, except the nerves, seem unaffected. He has seen a number of cases taken at night and ready for duty or business next afternoon. It was hard to keep these patients in bed twenty-four hours. In those of poor constitutions, or with inherent rheumatism, or neuralgia, or bronchial trouble, the history was quite different. There were frequent relapses, with continued fever and aggravation of their old complaints. Some of these patients were confined to their beds three weeks. From this form of sudden and sharp attacks there was a rapidly scaling down of the disease till it was so slight that the patient did not stop work Many had it and did not know it at the time. This was true of a medical man. These mild cases consisted of shooting pains through head and back, and

tingling in toes, and pain in heels, sometimes of itching in extremities, with coldness of surface. In one case the pain seemed confined entirely to the back, and was most intense. The disease is rarely, he thinks, serious in healthy subjects, but very grave in its sequlæ in unhealthy people.

Treatment.—The following recipe did all that could be desired in typical case. He never wrote but one prescription. He ordered at night hot foot-bath, rest in bed, and fasting, and the following:

R.—Antipyrin ..... gr. xx to xxv.
Ext. hyoscyam. ..... gr. iv.
Hydrarg. submuriat ..... gr. iv to vj.
M.—Make four capsules.
S.—Take two; and if not relieved in two hours, take the other two.

The first dose generally relieved the headache entirely, and as a rule it was not necessary to give the second dose. Of course, to minors he gave not so much antipyrin, but gave some dose of calomel. The sequelæ of the disease he treated upon general principles, and without regard to la-grippe.

Dr. J. W. Williams said that "la grippe," the disease that recently visited our city and country, was neither endemic nor pandemic, but epidemic; and, after remaining some six or seven weeks, disappeared as rapidly as it was ushered in, leaving in its wake a smaller per cent. of mortality than the newspaper reports and cablegrams from Europe would lead us to suppose.

In the majority of the cases that he saw the disease was signalized by pain in the head, involving the frontal sinuses, sometimes the occiput, then the muscles of the neck, mainly the sterno-cleido-mastoideus, arms, back, lower extremities, and in one case; even the toes. Suffused eyes in two cases, furred tongue, generally constipation, torpid liver in every case, great vascular excitement in all cases save one (a lady of nineteen years, who had no fever), the fever ranging high: and along with all this, there was marked asthenia.

Treatment.—As to cholagogues, he preferred podophyllin neutral, the best of this class, in one grain dose every three hours. This always roused the torpid liver, the patient having from four to eight bilious discharges. As a result of this, the tongue cleaned off, the headache disappeared (unless of neurotic origin), and the patient expressed himself on the following morning as "feeling better." In two cases he followed this by irrigating the colon with three quarts of warm

water (to which Listerine, ℥vj., were added). This brought away a large quantity of fetid matter, that had been packed away in the various convolutions of this organ. He then gave ten grains of quinia sulphate daily. In many cases, neuralgia attacked the head, chest (and in one case a young lady, the eyes). One patient, a robust gentleman, after the attack of "la grippe" had spent its force, "'phoned" him to "come at once." He found his patient in the agonies of neuralgia, the frontal sinus being the seat of the attack. He at once gave a hypodermic injection of a solution of sulph. morphia, $\frac{1}{6}$ gr.; sulph. atropia, $\frac{1}{120}$ gr.—M. This was repeated in a half hour. He soon fell asleep, and, on arousing, the neuralgia had disappeared.

Dr. Williams stated here that nausea was present in two cases, which were relieved by washing out the stomach with one to two quarts of hot water.

Another patient, a young married lady, while down with the disease, "'phoned" him in the night, and, on reaching her residence, he was alarmed by a sudden dysentery, blood and mucus passing, with tormina. He at onee washed out the colon, using a half gallon of warm water from an elevated fountain syringe, and gave—

℞.—Tr. capsicum ..... }
Tr. opii ..... } āā f. ℥j
Tr camphor ..... }
Chloroform ..... ℥iij
Spts. vini rect., q. s ..... ℥v

M.—Sig. Half a tablespoonful in water every one or two hours, according to circumstances.

All of his cases recovered.

The etiology of this influenza is obscure. The disturbance of the nervous system, the severe neuralgias supervening, the absence of nausea and vomiting in most cases, point to a neurotic origin; and until pathological anatomy decides otherwise, we may regard "la grippe" as a true neurosis. This hypothesis is strengthened by the fact that it has swept through the great nervous zone—Southern Russia, Western Europe, the Canadas, and the United States—synchronising with the most remarkable thermal disturbances and atmospheric changes that these countries have ever been subject to. This hypothesis is further augmented by the fact that it is just in this great belt that we find an increase of all nervous affections; for within this zone is the great path of commerce and trade, and nowhere else in the world is the

brain and nervous system of man subjected to such a constant and heavy strain.

This Influenza Europoæ, or catarrhus epidemicus, or in the *vulgus communis*, "la grippe" (from *grippus*, to seize, to hold) seems to have appeared in Europe in the following chronological order: In XIVth century, A. D. 1323, 1326; in XVth century, 1410, 1411, 1414; in XVIth century, 1510, 1557, 1562, 1574, 1580, and 1593; in XVIIth century, 1658, 1669, 1675, 1693; in XVIIIth century, 1708, 1712, 1729, 1732, 1733, 1742, 1743, 1761, 1762, 1775, and in XIXth century, 1800, 1803, 1831, 1833, 1837, 1843, and 1890.

Dr. Hugh M. Taylor thought the disease unique in its invasion and in its manifestations. He certainly had never met with anything like it in practice, nor had he seen it described accurately in medical literature. It was, in his opinion, no trifling epidemic. The aggregate loss of time, suffering, and even deaths, he thought was equaled by few epidemics; and as many cases and deaths from any other infectious disease would have created wide-spread consternation.

It was another problem for the student of preventive medicine. It came, acted its part, and passed on to other fields so quickly, that no one had time to consider its relation to sanitation. Its morbific influence is still presumably a part of the unknown microscopic or chemical world.

Its invasion was curious; in some sections it passed from place to place with astonishing rapidity, and yet it occurred in Paris for two weeks before it appeared in London.

Clinically, it was also curious. It seemingly had no period of incubation. Business men started out in the morning perfectly well, to return home in a few hours ill, with fully developed cases of the disease. Children sent out to play returned screaming with pain. Old people, those of middle age, and children were its victims, the latter less frequently. The disease as manifested in the person of the speaker was very suggestive of break-bone fever. He thought its effects still linger in the respiratory apparatus of many, and had or would precipitate tuberculosis in not a few of those so predisposed. He had an unusual number of such cases now under his observation, and he apprehended that the death rate from consumption would be largely increased during this year.

Dr. Charles M. Shields said that his experience with the prevailing epidemic had consisted in treating some of its sequelæ. Most of his cases were the usual ones of result-

ing catarrhal and middle ear trouble. The cases of eye affections were generally inflammation of the conjunctiva or ciliary neuralgia. He had seen one case, in consultation, of complete and permanent loss of vision. Its history was briefly this: The patient, a female of thirty, had been seized with all the usual symptoms of la grippe two weeks before Dr. Shields saw her. Her attending physician so diagnosed it, and treated her accordingly. On the fourth day, he thought her convalescing, and did not visit her on the morning of the fifth day. In the evening of that day he was sent for and was told that she had been suffering with a violent return of the pain in her head and eyes, and that she had just had a short convulsive attack. After some anodyne had been administered, she went to sleep and awoke the next morning—*blind.*

Dr. Shields saw her five or six days afterwards and found all perception of light absolutely gone. The opthalmoscope revealed neuro-retinitis. He thought it had begun as a descending neuritis. The retinal arteries were small, the veins large and tortuous, the retina itself hazy, and the outlines of the optic disc indistinct.

Mr. Hugh Blair described the case of a lady, which occurred in his household, the chief characteristics of which were suddenness of attack and the contractions of the flexor muscles—especially of the hands. He at once called in a medical adviser, under whose care the case was cured.

Dr. H. H. Levy referred to his experience, and brought out the common nervous manifestations in the cases that had come under his observation. He was impressed by the opinion that the disease was essentially of neurotic origin, course, and effects. He thought Dr. Edwards' remarks had not sufficiently distinctly indicated that these—the neurotic—were the leading features of the epidemic as it has occurred in Richmond.

Dr. Edwards concluded the discussion, admitting that Dr. Levy was correct and that, in his opinion, the disease should be recognized as chiefly of neurotic origin.

Hæmaturia was announced as the subject for discussion at the next meeting, and Dr. J. N. Upshur was appointed Leader.

Mellier's Fever Thermometer with Indestructible Index for $1.00 net is the cheapest article of its kind. In gold-plated case, $1.75.

Analyses, Selections, etc.

Toxic and Therapeutic Antagonism of Medicine.

Dr. Robert W. Westmoreland, of Atlanta, Ga., says (*Dixie Doctor*, March, 1890) that many cases of poisoning previously considered fatal may be successfully encountered in a reasonable limit of time by the exhibition of the poison.

The most pronounced antagonisms exists in the action of *chloral and strychnia*. Chloral has a more decided effect in counteracting a lethal dose of strychnia than strychnia has of correcting the toxic effect of chloral. Where less than the minimum lethal dose of two antagonostic poisons are given together, death is more apt to occur than where the full lethal dose of each is exhibited. *Calabar bean and strychnia* exercise contrary actions to each other, but not to the extent of chloral and strychnia. *Opium and belladonna* are active antagonists.

Calabar bean and atropia are antidotal. Atropia can counteract three and a half times the minimum lethal dose of physostigma. Yet less than the lethal dose of each, given together, may produce death.

Most of the toxic agents whose antagonism have been so far experimented with seem to exert their poisonous effect through their peculiar action on the nervous centres of circulation and breathing. For the circulation, this centre consists of ganglionic cells situated along the septa of the heart; while for the breathing, there is a special centre in the medulla oblongata. The kinetic energy of these centres is exerted in a rhythmical discharge or explosion, which produces the efferent stimulus necessary to functional action. Certain other accessory or modifying nervous influences are engaged in this vital process, but are not essential in its operation.

A certain class of poisons act as depressants to these centres, while another class have the effect of stimulants. A knowledge of this physiological differentiation will aid greatly in determining the remedy to produce a desired antagonism. Thus in poisoning by aconite, which is a circulatory depressant, decidedly antagonostic results are obtained from digitalis—a circulatory stimulant or tonic. Chloral, Calabar bean, opium and chloroform, being depressants, are antagonized and corrected by strychnia, belladonna and ammonia, which are excitants.

By this principle of antagonisms the scope of therapeu-

tics has been broadly enlarged. In emphysema, pulmonary fibrosis, atelectasis, dilated right heart, valvular diseases and cardiac hypertrophy, the accompanying dyspnœa or perturbed circulation is corrected or greatly benefitted by the judicious selection from that group of remedies whose special action on the nervous centres involved have been confirmed by experiments in antagonisms. Much yet remains to be learned in reference to *localizing* the effects of remedies and determining their antagonizing influences. Hydrobromic acid neutralizes certain injurious or disagreeable effects of quinine; the hæmolytic effect of mercury is corrected by iron; the depressant action of potash and colchicum is changed by strychnia and digitalis; but on what physiological particularity these results accrue, we are unable in the present state of our knowledge to definitely state.

Aristol, a Substitute for Iodoform.

Dr. Eichhoff, of Eberfeld, writes quite enthusiastically of *aristol*, a compound of iodine and thymol, recently manufactured by Bayer & Co. (*Monatschefte f. praktische Dermatologie*). Eichhoff believes that the new drug will supplant iodoform, not only in dermatological practice, but in other conditions where iodoform has heretofore been used, having the therapeutic properties of the latter drug without its disagreeable odor or toxic effects.

The author has employed aristol only in diseases of the skin, including various ulcers, eczema, lupus, psoriasis, etc., and after reporting his cases in detail, concludes—

1. That aristol is, in all cases, a harmless drug.
2. That it is a powerful parasiticide.
3. That in the ulcerations of tertiary syphilis, curative results are obtained more rapidly than with any other drug.
4. It is the most useful of all applications in the treatment of lupus.
5. In the treatment of psoriasis, it does not act quite as rapidly as chrysarobin or pyrogallic acid.

The aristol was, in most cases, applied as a ten per cent. ointment in vaseline.—*Medical News—Pittsburgh Med. Rev., Feb.*, 1890.

Treatment of Chancroid by Potassate of Sozoiodol.

Dr. Charles Szadek, of Kieff, Russia, says (*Atlanta Med. and Surg. Jour.*, March, 1890,) that sozoiodol has been used by Fritsch, Siefert, and Lassar as a substitute for iodoform

in the treatment of the various affections of the nose, larynx and skin with results confirming the good opinion held of the drug by Langaart (*Therap. Monatshefte*, 1888, September). Recently Kopytowski, of Warsaw, Poland, reports nine cases of soft chancre for which the salts of sozoiodol were used with the happiest results.

Sozoiodol $C_6 H_2 \begin{cases} I_2 \\ H O \\ S O_3 H \end{cases}$ is a new prodcuct of chemical synthesis, and contains 52 per cent. of iodine, 20 per cent. of carbolic acid, and 7 per cent. of sulphur. Its potassium salt is in the form of finest crystalline scales, and dissolves to the extent of 2 per cent. in water; the sodium to 7 or 8 per cent.; the zinc salt dissolves easily; the mercury compound with difficulty; they are odorless; chemical and therapeutic researches prove its exact identity with iodoform.

In private practice during last year he used the potassate of sozoiodol in substance or with creolin (1 per cent.), bism. subnitricum (5–10 per cent.) in 42 cases of chancroid with prompt success. The following are the usual prescribed formulæ:

R.—Sozoidolkali .....10, 0.
Creolini..... .... 0, 1.
M.—Pulvis.

R.—Sozoiodolkali.....10, 0
Bism. subnitrici.....0, 5—1, 0.
Mf.—Pulvis.

The powdered substance (4, 0) is applied to the ulcer and covered with a thin layer of wadding, over which is placed the ordinary dressing; the dressing is changed every twenty-four hours; in the case of soft chancres which are so situated that the dressing becomes saturated with urine, or which secretes profusely, it may be necessary to renew the drug twice daily. In the great majority of cases, in five to seven days, the ulcer loses entirely its specific characteristics. When this result has been obtained—that is, when the lesion has been converted into a simple ulcer—the applications of potassate of sozoiodol should be suspended, and boracic acid employed. Under this treatment, the ulcer becomes covered with healthy granulations, and cicatrization proceeds with great rapidity.

The merits of the new substitute for iodoform are that it is odorless (or nearly so), tasteless, produces no constitutional effects; it is antiseptic, a promoter of granulation,

and healing, and it arrests suppuration and deodorizes foul secretions. As a substitute for iodoform in the treatment of chancroid, the new drug has positively the same therapeutic effect as iodoform.

Curtailment of the Scrotum for Sexual Disorders.

From years of experience Dr. G. Wiley Broome, of St. Louis (*Weekly Med. Rev.*, March 1st,) believes that many forms of impotence, including spermatorrhœa, and many morbid genito-spinal reflexes, if not induced solely by a long and flaccid scrotum, are largely responsible for the presence of these infirmities. His general proposition is, that no form of atonic impotence can be completely restored in cases with redundant scrotum without first curtailing the same. Recently a man æt. 28, and a masturbator, came under treatment, who had been reduced to a state of sexual hypochondriasis by this condition. His scrotum was long, flabby and thin. His attempts to copulate were failures; neither was he able at the opportune moment to maintain an erection or effect intromission, yet there was a constant ejaculation of semen. For several years he suffered from almost intolerable dragging weight in his testicles and along the cord, and a constant pain in his back. There was varicocele on the left side. About three inches of his scrotum was removed. The dragging weight was scarcely felt after he got up, and the mental hypochondriasis was no longer a burden to him.

Dr. Broome believes it is the most rational method for limited varicocele yet devised. At the present day the contest as to the best means of curing varicocele lies between curtailment of the scrotum, antiseptic excision of the veins, and subcutaneous ligature.

Excision of the veins entails frightful mutilation, and places the life of the testicle in imminent jeopardy; necrosis of the testicle has followed this operation. Subcutaneous ligature is not a safe method in the hands of every one; the cord or the spermatic artery may be included, and much harm may be done in engaging the ligature. Neither of these methods tend to ameliorate the very conditions which are most at fault—relieving the pendant testicle and unsupported spermatic cord and vessels.

While it has not been demonstrated, yet it is believed that azoo-spermism, or infertile semen, may follow a chronic condition of relaxed and elongated scrotum, and partial atrophy of the testicle is in many cases induced by the same

cause. The constant dragging weight effected by the unsupported testicle through the spermatic cord is sufficient to produce these changes, including many other of the morbid phenomena peculiar to sexual debility. The remedy for this evil lies in the operation proposed. The shortening of the scrotum and the establishment of nature's method of mechanical and physiological rest of the testicle, is the end accomplished.

The operation itself involves much care and a little dexterity. The technique embraces details that must be observed. The best results in all surgical operations are obtained in the modernized hospital. Dr. Broome used the clamp instrument devised by Dr. Ferdinand King in each case. The first step is sterilization of the parts by means of soap, brush and razor. The operator's hands should be scrubbed, likewise his knife and the clamp. Then place a bandage around the patient's abdomen, another around his penis and fix the ends of the latter to the former, in order to carry and hold the penis against the abdomen. Then apply the clamp, carefully engaging it immediately above the line at which it is proposed to amputate the scrotum. This point of selection should be high enough to form, when healed, a firm floor for the support of the testicles. A number of interrupted sutures are then secured. This being completed, the dartos and integument are firmly stitched together with a small Hagedorn needle, and the catgut suture passed through each one of the eyelets in the instrument. The instrument must be left firmly adjusted until the two membranes are safely and completely united, for by disengaging the dartos from the jaws of the clamp before it has been firmly fixed to the skin, alarming and uncontrollable hæmorrhage may result. In fact the clamp should be left *in situ* for several hours until exsiccation is well under way. The wound itself is dressed with cyanide of zinc and mercury rubbed in ordinary gauze; the penis is kept bandaged until the wound is healed.

In the discussion which followed, Dr. Laidley commends the operation, but adds his caution from experience about the dangerous hæmorrhage unless every detail is carried out as advised by Dr. Broome.

Dr. Hughes cannot believe that a redundant scrotum has anything to do with impotency.

Dr. McPheeters has no doubt but that there are cases in which the operation is justifiable.

Book Notices.

Hand-Book of Materia Medica, Pharmacy and Therapeutics. By SAM'L O. L. POTTER, A. M., M. D., Professor of the Theory and Practice of Medicine in the Cooper Medical College of San Francisco, Etc. Second Edition. Revised and Enlarged. Philadelphia: P. Blakiston, Son & Co. 1890. Cloth. 8vo. Pp. 766. Price, $4. Sheep, $5. (For sale by West, Johnston & Co., Richmond.)

This volume assumes a big undertaking, but it so well accomplishes its object as to compel the expression of opinion that it is a practical and a capital work for student, teacher, and practitioner. It includes a well-authorized statement of the physiological action of drugs, the special therapeutics of diseases, the practical study of official and extemporaneous pharmacy, and it gives minute directions for prescription writing, etc. While not all the drugs of the Dispensatory are considered, so far as we can see all that have proved useful in practice are treated of pharmacally as well as therapeutically. Besides the 400 pages given to descriptions of drugs, and uses and forms of administration, etc., pages of incompatibilities, etc., are given. Over 200 pages are devoted to special therapeutics—naming the remedies and stating how to use them for nearly all distinctively described diseases, etc. In the Appendix, besides the long list of Latin words, phrases, etc., used in writing prescriptions, with their contractions and the corresponding English equivalents, many hypodermic formulæ are given, the composition of numerous popular patent medicines are stated, etc. How to treat cases of poisoning by most of the medicinal poisons forms a valuable section. Synoptical statements are recorded of differential diagnoses of many important diseases. Temperature, obstetrical, urinalysis, emergency memoranda, etc., are also given. In short, the wants of the practitioner have been well provided for.

Practical Electricity in Medicine and Surgery. By G. W. OVERALL, M. D., formerly Professor of Physiology, Nervous Diseases and Electro-Therapeutics, Memphis Hospital Medical College. Published by J. H. Vail & Co., New York. 1890. From Publishers. Cloth. 8vo. Pp. 136. Price, $1.

This work—which is rather a summary of the author's experience with, and his opinions of medical electricity than a compilation treatise on the subject—is of course thorough-

ly practical, and thus is alike serviceable to the student and electrician. It strives to tell accurately of the uses and abuses of electricity—neither as an enthusiast nor yet as a skeptic. It is divided into four parts—Part I being on electro-physics; Part II on electro-physiology; Part III on electro-therapeutics, and Part IV on electro-surgery. The manner of treating special diseases is well-described by text and cuts. A very good Index is appended so as to aid in making ready reference to a special disease, etc.

Text-Book of Medical Chemistry. By ELIAS H. BARTLEY, B. S., M. D., Professor of Chemistry and Toxicology, and Lecturer on Diseases of Children in Long Island College Hospital, etc. Second Edition—Revised and Enlarged. With 62 Illustrations. Philadelphia. P. Blakiston, Son & Co. 1890. Cloth. 12mo. Pp. 425. Price, $2.50. (For sale by West, Johnston & Co., Richmond.)

An examination of this "text-book of medical chemistry" will convince anyone that it is the very one for medical students and practitioners. It deals only with those parts of chemistry and physics pertaining to medicine—no space being wasted in theories and descriptions of substances of interest only to the advanced hemical student. Not only is the chemistry of each article given, but a statement is made of its therapeutic effects and toxicology. Not only is it a therapeutic and pharmacal chemistry, but it is useful also to the pathologist and physiologist. Thus, it gives chemical analysis of the blood, the urine, ptomaines, leucomaines, glucosides, natural fats and oils, proteids, unclassified compounds of animal origin, soluble or albuminoid ferments, organized ferments, etc. It gives also the chemistry of poisons and their antidotes, special poisons, etc. For the busy doctor, who still wants chemical information, this is the very book for him.

Wood's Medical and Surgical Monographs. VOLUME V. No. 2. February, 1890. CONTENTS: (1) *Action of Uric Acid in the Causation of Disease*, by A. HAIG, M. D.; (2) *Initial Stages of Consumption; Their Nature and Treatment*, by HORACE DOBELL, M. D.; (3) *Ectopic Pregnancy and Pelvic Hæmatocele*, by LAWSON TAIT, M. D. Wm. Wood & Co. New York.

The statement of the contents, as above, of this monograph is sufficient to prove that it is valuable and remarkably cheap at $1. Dr. Lawson Tait's one monograph article is enough in itself to make this February tssue a desirable number.

Artificial Anæsthesia. By LAURENCE TURNBULL, M. D., Ph. G., Aural Surgeon to Jefferson Medical College Hospital, Philadelphia. Etc. Third Edition. Revised and Enlarged. With Illustrations. Philadelphia: P. Blakiston, Son & Co. 12mo. Pp. 531. (From Publishers.)

This "manual of anæsthetic agents, and their employment in the treatment of disease," is invaluable to the physician as well as the surgeon. The present is a thoroughly revised edition, and contains data almost up to the date of issue. Nearly 90 pages are given to cocaine, its uses and its dangers. A long list of local anæsthetics is next given, and each one described therapeutically. But of course the greater part of the work is devoted to the major anæsthetics—nitrous oxide, ether and chloroform, with a comparison of the merits of each. As to the author's "choice of anæsthetics," he prefers cocaine and bromide of ether for minor surgery; for ordinary dental work, nitrous oxide gas and ether; for severe and protracted surgical operations, he thinks the proofs of the comparative safety of pure ether are full and complete. The enthusiasm of the author's conviction, which still seems to us rather the expression of a prejudice of an early formed opinion than one that comes out of records not dwelt upon by him in the text, leads him to say of chloroform that "no one is justified in using it, unless the ordinary agents (specified above) fail him, or unless he has to employ the actual cautery." If we had the space, we could easily show from the records, as given by the author's book, that he overreaches the point of justifiable conclusion about chloroform in affirming that "no one is justified in using" it for ordinary surgery, etc.

In the wonderful record of fatalities after operations by some surgeons who use ether alone, we can scarcely divest ourselves of the suggestion that the death-rate of ether is not made up sometimes for several days after the surgical operations themselves. We are timid about both of these agents, and are still of opinion that circumstances and idiosyncrasies should determine us in the selection of the anæsthetic.

You can never be disappointed with a chemically pure preparation of the Hypophosphites of Lime and Soda. McArthur's Syrup is guaranteed to be pure. See their advertisement on institched page, and send for a pamphlet and a sample.

Editorial.

Western [Va.] Lunatic Asylum Board of Directors, and the Rightful Claims of the Medical Profession on Such Boards.

The *Staunton* [Va.] *Vindicator* of February 28th did us the compliment to reprint in its entirety the editorial in our February issue relating to the election of Miss C. L. Haynes, M. D., by the Board of Directors of the Western [Va.] Lunatic Asylum (located at Staunton) as an Assistant Physician in that State institution. We regret that our limited space does not permit us to reciprocate the courtesy of a republication of the column and a half editorial in this influential weekly newspaper vindicating the action of the Board. If we are wrong, we want to get right. The points involved in our February editorial are raised in importance high above that which refers to the person or the location furnishing the text. Virginia, North Carolina, Alabama, Minnesota, and other States have established, or are establishing, medical practice laws which are threatened by disregard almost as soon as they go into effect if we allow this striking instance of unconcern about the Virginia law to pass unchallenged.

We leave aside any discussion as to who Miss Haynes, M. D., is. It is unfortunate that her intentional friends have given her name such conspicuous notoriety. Let it suffice for a biographical sketch that she was born in Spartansburg, S. C., graduated in medicine from the Woman's Medical College *less* than two years ago (1888), and that since then she has been "for some time" Resident Physician at the Massachusetts State Primary School, in Palmer, Mass., and "with such success in all respects as to make the authorities of that institution very loath to part with her." But do even these facts warrant her friends of the Asylum Directory in placing her in the awkward position of *unlawfully* practicing medicine in Virginia, or any other State? We do not suppose that the *Vindicator* wishes to go on record as advocating the violation of the plain Virginia law (see Acts of General Assembly, 1883–4 and 1887–8) on the subject, which has been thoroughly tested in the courts, and respected everywhere else by the good citizens of the State.

The enactment referred to clearly defines it unlawful for any person to enter upon the practice of medicine (since January 1st, 1885,) within the limits of Virginia for fee or reward until he (or she, as the case may be), first of all, shall have been examined by the State Board of Medical Examiners and received therefrom a certificate evidencing

sufficient qualifications. What matters it if Dr. Haynes does come to Virginia with the diploma of graduation in medicine from the Woman's Medical College of Philadelphia—is it not regularly demonstrated by the semi-annual examinations of the State Medical Examining Board that Colleges of greater fame and wider influences, and conducted by Professors just as competent as the Woman's College of Philadelphia, *annually* send out candidates who are incompetent to pass the ordinary practical examinations of the Examining Board? An apparent lack of information as to this fact on the part of the Directory of the Asylum and also of the *Vindicator*, at once sets at naught every effort at vindication of the premature action of the Board of the Staunton Asylum Directors. Does the Asylum Board or the *Vindicator* ask for proof? Let whoever is interested examine the regular Reports of the Medical Examining Board of Virginia. Turn to the last one (published in the November number, 1889, of the *Medical Monthly*). It will be seen that during the examinations at Roanoke, Va., last September twenty-six applied for examination (three of whom, however, were not graduates), and *only eight graduates* of medicine were found qualified to enter upon the practice of medicine. And yet *the fifteen rejected graduates held diplomas from Medical Colleges* in every particular the equal in ability, opportunity, and fidelity of the Professors of the Woman's Medical College to teach and to graduate only upon supposed merit.

We would regret to have to expose to the laity some of the answers of the *graduates* to questions then asked; and yet they are matters of record. One says, "the duodenum empties itself into the ilium;" another, that, in dengue or "break-bone fever," "the fever does not come on till three days after the bones break;" another says, that "iodine is sometimes dug out of the ground in lumps as big as your fist;" another, that "the renal artery enters into the formation of the portal circulation;" another, that "atheroma is a cystic tumor;" another says, "The stomach is the organ where the food is digested at; it is a very extensive organ;" another says, "Don't know much about the diagnosis" [of dislocation of the head of the femur upon the hip], "but know the treatment is to amputate;" another says, of the subclavian artery, that "it is a very important artery which passes through the chest;" another defines a pathological or a biological cell as "a place of confinement;" and thus we could go on quoting answers given the Virginia Board of Examiners by *graduates from the best of colleges in the*

United States ridiculous enough to "make a dog rise up and strike his father." And yet just such graduates as these would have been imposed upon the people of the State as *doctors of medicine* had not the Medical Examining Board of the State arrested them and turned them back again to their studies.

And now apply the question, What evidence have the people and profession of Virginia that the Woman's Medical College of Philadelphia turns out all of its graduates so much better qualified to practice medicine than all of the graduates of the world-famed Jefferson Medical College, of Philadelphia, or the Universities of Pennsylvania, Maryland, New York, etc.? The very fact that never before in the history of the Board of Examiners has an applicant been before it from the Woman's Medical College should make it the more imperative that the first one, who proposes to enter practice in Virginia, should be fully tested as to her qualifications. If she stands the test, then let her practice; if she cannot stand the test, then she should be rejected. The female wards of the Western Asylum have just as much right to demand tested competent medical attendance as the male wards.

But it is the Directory of a *State* Asylum that has elected her to fill a physician's place! and, in fact, to be *the* doctor for the female wards! So much the worse. In private life the individual can select and dismiss his or her own medical attendant; but in a *State* institution the patients *must* have the one doctor appointed to attend them—they have no choice, nor an opportunity to choose. How important—how responsible, then, the trust devolving upon the Board of Directors of that institution in selecting the *competent physician* for those that cannot select for themselves? The question bears its own unmistakable answer.

We repeat, that "we are not aiming these remarks at Miss Haynes, for we do not know anything about her." But she would indeed be a genius—a prodigy—if, within less than two years after graduation, with perhaps scarcely a year of actual practice since then, she has acquired such knowledge of medicine as to receive exalted testimonials from "many male physicians" as to her *special ability as a practitioner*—we mean from many "male physicians" who have themselves been in position to judge. In fact, we had not supposed that the Massachusetts State Primary School at Palmer furnished any special field at all for the acquirement of special information about insanity or the conditions that lead to insanity. We are prepared to believe,

however, that Miss Haynes possesses sufficient attractiveness (for many Southern born ladies have this) and education to favorably impress those in whose society she may have been thrown; and thus it is easy for a lady to get any number of testimonials for which she may ask. And it would indeed be a reflection too severe on the College that gave her her diploma to suppose that the Dean would be unwilling to give a certificate as to her qualifications. But we have seen that an official certificate of graduation does not necessarily indicate the real proficiency of the holder, when he or she come to be tested by the examination of an impartial Medical Examining Board, such as Virginia has. Hence, when no demand has been made for it, it was an unnecessary risk of prematurity to elect one who never lived in Virginia, and whose medical competency is absolutely unknown to the profession of the State.

If the *Vindicator* knows the several times expressed opinion of the *Virginia Medical Monthly*, it will not charge this journal with opposition to qualified female physicians, nor to the education of ladies as physicians. Our criticism, therefore, of the action of the Board of Directors of the Asylum in making the premature election cannot be placed at the door of objection on account of Miss Haynes' sex.

And now a word about the Board of Directors of the Western Lunatic Asylum and their action. We yield to none a generally higher estimate than we have of them as gentlemen "of affairs, men of intelligence," etc. But does the *Vindicator* think that this Board exhibited due conservatism in electing to so important a trust as *the physician* to take practical *medical* charge of one-half of this historic State Insane Asylum or Hospital a lady unknown to them or any one else in Virginia as a practitioner, who has had scarcely a year's experience as a doctor, whose opportunities for special study of diseases of the brain and other causes of insanity does not appear in evidence, and whose ability to pass examination by the Medical Examining Board of Virginia is as yet not even tested, *simply* upon the usual courtesy testimonials of the authorities of a State Primary School, the certificate of the Dean of the College granting her her diploma, and the letters of a few unknown physicians friendly to her, but who most probably have never even so much as had an opportunity to test her skill or criticize her professional ability? The only one member of the Board of Directors of the Virginia Asylum who is a doctor at all is not even so much as a member of his State Medical Society; nor are we aware that he claims active

membership with any of the local medical societies of his section of the State; nor does he take his State medical journal. And yet the *Vindicator* holds him up before the medical profession of Virginia as an "old and experienced" physician, "and a most valuable one from his combined *knowledge of the profession (?)* and of business affairs!" He has undoubtedly rendered his State valuable services in the political field, and his popularity as a politician has not passed away; and yet we venture to say that, until the publication in the *Vindicator*, but comparatively few of the profession of his State outside of his immediate associates were aware that he had been in active practice for years. No other member of the Board even assumes the title of doctor, so far as we know. And yet such is the composition of the Board of Directors of the Western Lunatic Asylum that assumes the *role* of selecting *medical men and women for medical positions*, where only the highest degree of obtainable special professional learning is desirable.

The *Vindicator* should have understood that it is neither the impossible nor the impracticable that the Medical Profession of Virginia is undertaking.

The Medical Examining Board of Virginia is only five years of age. It was never in contemplation by the Profession, in seeking the medical practice Act, to displace medical men from positions they had no power to examine, but it was only on the theory of letting the past alone, and establishing a new era of progress, that the Profession of this State put into existence, under law, on January 1st, 1885, the Medical Examining Board of Virginia. Since then this Board has rendered efficient services to the State by testing impartially the qualifications of all, so far as known, who have entered the profession. Thus the people are deriving an untold benefit by having only the competent physicians sent to them, while the profession itself is likewise gradually resuming the rank it once held among the learned in science and letters.

It would be a perversion of a plain intention for any one to accuse us of advocating the appointment of a majority of medical practitioners on State Boards that have to deal, for the most part, with strictly professional matters; but we do maintain that the Medical Profession has a right that ought to be universally conceded to it by all, that it should stand well represented on such Boards by *some of its representative members.*

We have given such prominence to this matter, which, at first blush, might seem of local interest, because it in-

volves questions of practical importance to the welfare of scientific and professional progress in other States as well.

Meeting of Medical Examining Board of Virginia.

The Semi-Annual Session of the Medical Examining Board of Virginia will be held in the Hall of the House of Delegates of Virginia, Richmond, Va., beginning Tuesday evening, April 8th, at 8:30 P. M.

The Session Tuesday evening will be occupied in selecting the subjects for the Examinations, and in disposing of such other routine business as may be brought to the attention of the Board.

The Examinations will be begun promptly Wednesday morning, April 9th, at 9 A. M. Applicants should, by all means, be on hand to enter upon the work of the Examination at the hour appointed. The Session of the Board will continue Wednesday and Thursday, April 9th and 10th. Every available hour of the time is utilized. Three hours are appointed to each Section, viz: Chemistry, Anatomy, Hygiene and Medical Jurisprudence, Obstetrics, Gynæcology, Practice, and Surgery.

Examinations on each are put up in the order named, and promptly at the end of the specified time of three hours for each, the next in order is substituted; and thus applicants who fail to begin the Examination at the beginning labor under a decided disadvantage.

Answers to questions must be in writing, and the papers must be signed, *not* by the name of the writer, but by a number furnished him by the Secretary of the Board. Applicants are assigned seats, and are expected to occupy them. No applicant is allowed to absent himself from the Examination-room until he has handed in his papers on the Examination then under consideration.

The result of the Examinations will be announced at as early an hour as possible on Friday morning. Applicants who do not wish to remain over can have the result in their cases forwarded them by mail by leaving their addresses with the Secretary.

The Board holds two Semi-Annual Sessions. One of them is fixed by law to be held in Richmond, and the other is usually held in the Fall at some place and time selected by the Board. It is probable that no further opportunity will be afforded applicants to appear before the Board until some time in September or October.

Applicants need no permit to come before the Board other than that given by the Secretary at the time of the meet-

ing. Graduates and non-graduates are equally privileged to stand the examination. A fee of five dollars ($5.00) must be paid the Treasurer by each applicant at the time he receives his permit to be examined.

Applicants who fail to pass the first, can stand a second examination without again paying the fee, and applicants who withdraw before completing the examination will have their money refunded.

Further particulars concerning the Examination may be obtained by conferring with Dr. Hugh M. Taylor, of Richmond, Va., Secretary and Treasurer.

To Show the Need of Medical Examining Boards for Graduates.

We copy a few of the answers given before the Minnesota State Board of Medical Examiners during their recent examination. We join expression with the *Northwestern Lancet*, (February 15,) in the statement that: "It is a pity that the general public cannot carefully appreciate the important task performed by the [State Medical Examining Board] in shading them from such dense and dangerous ignorance as is revealed in the following quotations; copied *literatim et verbatim* from the written answers of candidates," who, without the law as it now stands, would have been let loose as practising doctors. There are many just as ignorant now in the profession that cannot be reached who must be endured until they die out. But we can prevent many ignoramuses now applying from entering the profession.

"Symptoms of odema of the glottis are that the patient feels husky and has sore throat. I would amputate it if necessary. I would do the operation within three or four months if it was a bad case."

"The dose of morphia sulph. for a child of five years, hypodermically, would be one-fourth grain, and if that doesn't give relief, I would give one-half grain."

"The dose of antipyrin for a child five years old is fifteen grains every three hours."

Q. "What is an element?" A. "Earth, water, wind, fire.

Q. "Definition of Inorganic Chemistry?" A. "Chemicall examining of metals or in geoligy for lime phosphates or any minerals."

Q. "Definition of Organic Chemistry. A. "Of flesh, stomach, bowels, liver or kidney, or any organic matter."

"The Sterno-Cleido-Mastoid muscle takes its origin from the mastoid portion of the temporal bone, runs down the neck, and is inserted into the upper and back portion of the scapula."

"The coverings of the femoral artery is the same as of hernia, it lies between the femoral vein and sciatic nerve."

"The pulmonary artery is a branch from the great arto, fully supplying the lungs with arterial blood."

"The coverings of the femoral artery are three in number, and in Scarpia's triangle, include the vein and nerve."

"The kidney is a muscular formation, in shape oblong, color quite dark, weight about one pound to one and a half, but may vary considerable."

"Parts severed in amputation at upper third of thigh—just avoiding the insertion of the glutei musels, passing through the Taylor's musel, periostum and femer."

"Coverings of oblique inguinal hernia—skin superficial facia, transversalis mussle peritoneum and omentum."

"The sympathetic system is composed of all the filament of nerves that start from the spinal cord, and are distributed to all parts of the system, especially the brain. The cervical portion ramifies the encephalon in general. The dorsal portion ramifies the anus."

"Extra Uterine pregnancy may be a fungoid groth or tumor fibroid in its character or any extra groth in the uttrous would be called extra uterine pregnancy."

"A breech presentation may be known by the sense of touch, the buttox being different in formation from the cranium. The anus is different from the mouth, absence of tongue and nose. get your finger in the inguinal reagion soon as possible and assist your patient by ferm but gental tention."

"Trismus neynatorum—a peculiar trouble of the eye, generally congenital, falling of the lids giving a unnatural look to the ordinary face of a child."

Q. "Tests for Arsenic." A. "Separate the juices or secretions in the stomach and evaporate the aquaeous portion and the test precipitate with acids"

Another writes, "Don't know anything about it. Such a stomach would be sent to a chemist at the present day."

Q. "Give the distinctive histological features of carcinoma." A. "Carcinoma will show a general dropsical condition. Transparent condition of all the fluids except the urine which may show considerable deposit, scanty and hot. The patient's puls heavy, large, does not care to move."

"Tubercle of lung is supposed cause of consumption and the one generally advocated and preventive treatment is any that will burn up them or destroy them I am a believer in alcohol but the why and its action I am unable to give.

Q. "Test for arsenic in wall paper." A. "Don't know; if I should happen to have a case where it was necessary should look it up. I know it is to burn something in a room and the fumes will turn the paper green."

Q. "How would you tell Sulph. Morphia from Sulph. Quinia?" A. "Sulph. Quinia is white flaky glistening. Has a metallic look. Tastes bitter. Never saw any pure Sulph. Morphia in my life. Have no use for either."

Change of Place of Meeting of the Florida Medical Association.

Lest quarantine regulations might interfere with the meeting at Key West, the place of meeting of the Florida Medical Association this year has been officially changed to Ocala, April 8th, at 3 P. M. Members should notify the Secretary *pro tem.* (Dr. J. D. Fernandez, of Jacksonville, Fla.) by March 20th, of the title of any papers they may write for the Session. It is urgently requested that at least one representative from each Judicial District Medical Examining Board should attend the meeting, with full reports from their respective Boards. We cannot help commending the indefatigable energy and great ability displayed by the President of the Association (Dr R. A. Lancaster, of Gainesville,), in organizing the various Medical Examining Boards of the State, and in imparting a new life to this State Medical Association, whose opportunities for usefulness to the profession of the country are so numerous.

Ponca Compound Tablets,

As prepared by the Mellier Drug Co., are undoubtedly deserving of professional trial and report. The preparation has been advertised for some time, but has not been tested as its merits justify. The formula and uses are stated in the advertisement on third cover page; and there are many ladies now going about with restored health who can testify to the value of these tablets in their cases. We have had, as all practitioners have, patients who wanted something to take for just such troubles of uterine and ovarian origin as are spoken of in the advertisement, and began to use these Ponca Compound Tablets for want of something better until we began to learn, by observation, that they were the very things wanted. Give them a trial.

Dr. Robert Battey, of Rome, Ga.,

Will deliver the Annual Address next month before the Alumni Association of the Jefferson Medical College, of Philadelphia, Pa.

The Tenth International Medical Congress

Will be held at Berlin from the 4th to the 9th of August, 1890. A special committee of organization has been appointed for each of the different sections to arrange the scientific problems to be discussed at the meetings of the respective sections. An international medical and scientific exhibition will also be held by the Congress. Dr. Rudolf Virchow, President; Drs. von Bergmann, Leyden, and Waldeyer, Vice-Presidents; Dr. Lassar, Secretary General, are the officers of the General Committee of Organization. All communications must be directed to the General Secretary, Berlin, N. W., Karlstrasse 19.

Reed & Carnrick's Preparations of Cod-Liver Oil and Milk

Are useful at all times, but are especially useful just now when all over the country, following upon the epidemic of *la grippe*, every one disposed to any of the "wasting diseases" feels more or less the need of a good cod-liver oil food and tonic. No preparation of cod-liver oil is more palatable and none more nutritious than this one of *oil and milk*. The preparations will keep for any required length of time. Messrs. Reed & Carnrick also make a full line of cod-liver oil and milk preparations *with hypophosphites, strychnia, etc.*, which are reliable and palatable.

The Clark Chair—Messrs. Roberts & Allison

State the fact correctly in their advertisement (on page 24) that "it will pay" whoever is on the lookout for a good office gynæcological and surgical chair "to investigate the improved Clark Chair." We were so favorably impressed by the descriptions of it that we ordered one for ourselves, and in office practice, we find its "strength, appearance, and convenience" altogether as claimed for it. Write to Messrs. Roberts & Allison, Indianapolis, Ind., for a descriptive circular, and tell them "we told you so."

The Philadelphia Lying-in Charity,

It is said, has been compelled to close its doors *on account of an outbreak of malignant puerperal fever*. If the doctrine of antisepsis is correct, some one must be responsible for the gross negligence. Scrub, whitewash, paint and fumigate, and then start off again with every article of bedding and dressings, furniture, and everything else antiseptically clean.

Mr. I. Phillips,

Surgical Instrument Maker and Dealer, of Atlanta, deserves the thanks, and especially the patronage, of Southern practitioners in need of surgical instruments, orthopædic appliances, etc. He gives but a partial list of his "cut rates" on advertising page 12 of this issue. Compare his prices with even the revised catalogues of the best instrument houses in New York and other cities, and it will at once be seen how great are the inducements to patronize Mr. Phillips. He is a straightforward, honest, "all-cash" dealer in instruments of excellent quality and of latest invention.

Dr. L. S. McMurtry.

Ex-President of the Kentucky State Medical Society, has removed from Danville to Louisville, Ky. He has recently visited Philadelphia, Pa., where he read a paper, by invitation, before the Philadelphia County Medical Society, on "Abdominal Surgery." It is in this very line of practice that he has gained a more than national reputation. We wish him continuance of professional success at his new home.

The McArthur Hypophosphite Co.

Has taken for the year, commencing with this number, the full page of the white card board near the end of our advertising department. In calling attention to it, we feel that we are but reminding our readers of "the old reliable" preparation of hypophosphites of lime and soda that are so much needed just now in the repair of tissues that have been seriously impaired by the occurrence of *la grippe*.

A Medical College for Colored Students

Has been organized recently in New Orleans as a part of the New Orleans University. This is, we believe, the fourth medical college in the country that is distinctively incorporated for colored students—although one or two others in the Northwest make no exclusion on account of race or color.

Dr. A. W. DeRoaldes.

Aurist and Laryngologist to the City Eye, Ear, Nose and Throat Hospital, has been elected to the position of Instructor in Diseases of the Ear, Nose and Throat in the New Orleans Polyclinic, made vacant by the resignation of Dr. Ayres.

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Notices of books, colleges, journals, deaths, personals, and proceedings of societies, etc., are indexed in the **Index of Subjects**, under the respective words, **Book Notices, Colleges, Journalistic, Obituary Record, Personals**, and **Society and Board Proceedings, etc.**

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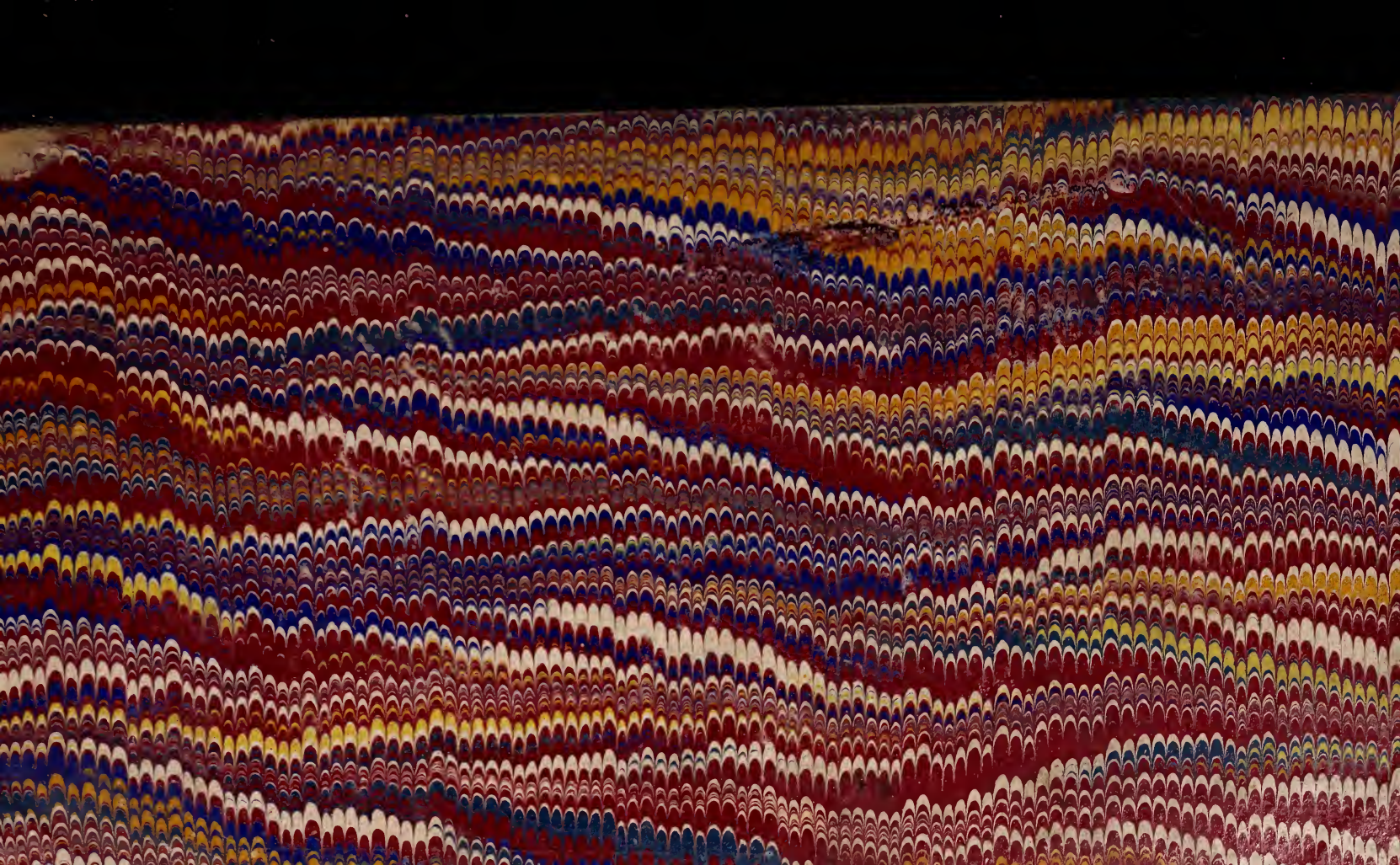
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